VERMONT
Safe Routes to
SCHOOL

Burke Town School

Safe Routes to School Travel Plan

October 2012

Prepared with assistance from the VT SRTS Resource Center

SafeRoutesVT.org

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INTRODUCTION

This Travel Plan represents the work of the Burke Town Elementary School Safe Routes to School (SRTS) Team. Our school is a Silver Level Partner with the Vermont Safe Routes to School Resource Center. We believe creating and maintaining this Travel Plan is a good way to ensure an on-going Safe Routes to School program at our school.

A SRTS team consisting of parents, teachers, and other community stakeholders provided input, guidance, and oversight in writing our plan.

The ideas and recommendations developed during this process will guide us in creating a well-balanced approach to building our SRTS program at Burke Town School. Our school team will use this document as a resource to plan our encouragement, education, enforcement, and evaluation efforts with assistance from the VT SRTS Resource Center.

The Vermont Agency of Transportation (VTrans), through the Vermont SRTS Resource Center, has provided technical assistance in producing this plan. With the help of the Resource Center, we have identified infrastructure

The Five E's

SRTS combines many different approaches to make it safer for children to walk and bicycle to school and to increase the number of children doing so.

Engineering strategies create safer environments for walking and bicycling to school through improvements to the infrastructure surrounding schools. These improvements focus on reducing motor vehicle speeds and conflicts with pedestrians and bicyclists, and establishing safer and fully accessible crossings, walkways, trails and bikeways.

Education programs target children, parents, caregivers and neighbors, teaching how to walk and bicycle safely and informing drivers on how to drive more safely around pedestrians and bicyclists. Education programs can also incorporate health and environment messages.

Enforcement strategies increase the safety of children bicycling and walking to school by helping to change unsafe behaviors of drivers, as well as pedestrians and bicyclists. A community approach to enforcement involves students, parents or caregivers, school personnel, crossing guards and law enforcement officers.

Encouragement activities promote walking and bicycling to school to children, parents and community members. Events such as Walk to School Day, contests such as a Frequent Walker/Bicyclist challenge, or on-going programs such as a Walking School Bus or Bicycle Train can promote and encourage walking and bicycling as a popular way to get to school.

Evaluation is an important component of SRTS programs that can be incorporated into each of the other E's. Collecting information before and after program activities or projects are implemented allow communities to track progress and outcomes, and provide information to guide program development.

- Excerpted from "Safe Routes to School: A Transportation Legacy", the report of the National Safe Routes to School Task Force

improvements that would have a positive impact on walking and biking to school. These infrastructure recommendations are considered planning level and will require further engineering analysis to determine feasibility. It is our hope that our recommendations can be the basis for grants and/or improvements initiated by the Town of Burke.

Members of the Burke Town School Travel Plan Team	
Stacy Rice Principal	**Lisa Gray** PE Teacher
Marc Brown Facilities Manager	**Sam Sanderson** Town Selectman
Rachel Roy PTO President	**Dean Shatney** Caledonia County Sheriff
Tim Tierney Kingdom Trails	**Beth Amodeo** School Admin Assistant
Gail Aloisio Planner, NVDA	**Tony DeMasi** Burke Town School Board

TEAM VISION

The SRTS program at Burke Town School aligns with the community's efforts towards promoting walking and biking. The SRTS program goals of combining engineering, education, enforcement, evaluation, and encouragement strategies (also known as the Five E's) to improve the safety and health of students who walk and bike to school, fit our school and town values well.

Our vision for Burke Town School (and the community) is:

- To provide a safe walking and biking experience along and across Burke Hollow Road
- To be a place where parents feel that their children are safe on all roads
- To be better connected with the Kingdom Trail network of paths as potential routes to school
- To be a school that has many opportunities for students to travel by foot or bike

This Travel Plan outlines our school's intentions for making walking to and from school more sustainable and safer for students and the community. Through our SRTS program we hope to encourage more of our students to walk or bike to school.

ABOUT THIS PLAN

Our SRTS team met three times with the VT SRTS Resource Center to develop and adopt this SRTS Travel Plan. Each meeting provided education on the benefits of SRTS and highlighted successful program components and strategies. The "engineering meeting" included a guided walk audit of the areas around our school. We also discussed education, encouragement, enforcement, and evaluation strategies which helped identify needed and complimentary programs to support proposed engineering strategies.

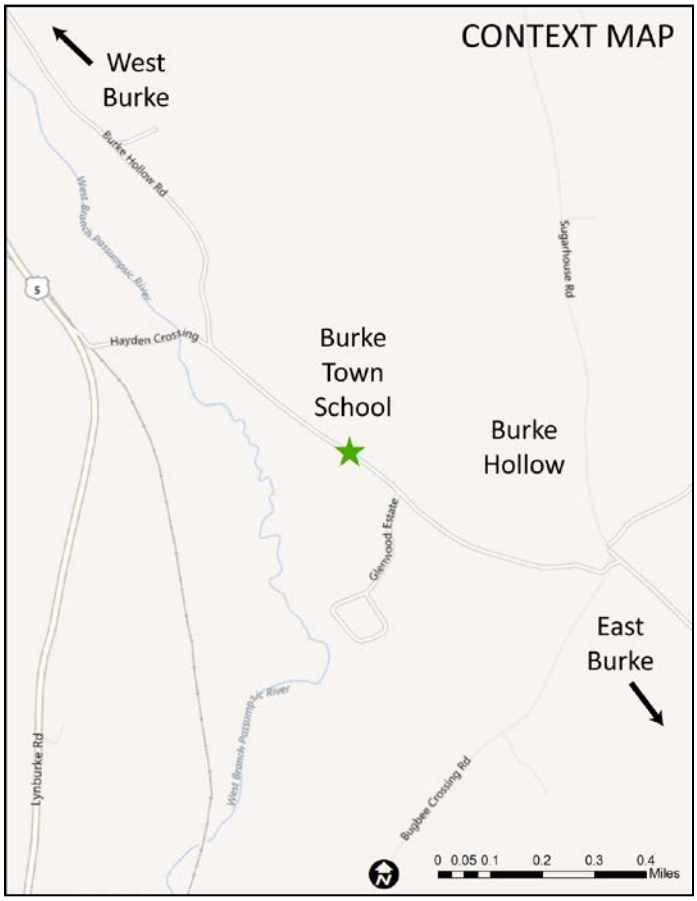
Meeting Date	Content and Outcomes
August 2012	**Kick-off Meeting**: **How the VT SRTS Travel Plan Works** - Award of the planning assistance grant - Overview of the planning process **Engineering Meeting** - Team visioning - Opportunity and barrier discussions - Walk audit
September 2012	**Plan Review** - Reviewed the draft plan - Observed arrival and dismissal - Identified roles and continued steps for non-engineering recommendations
October 2012	**Plan Adoption** - Adopted plan - Discussed continuation of non-infrastructure recommendations

TRAVEL PLAN CONTEXT

BURKE TOWN SCHOOL AND TOWN OF BURKE OVERVIEW

Burke Town School is located in Burke, VT, a small town comprised of the villages of East Burke, Burke Hollow, and West Burke in Vermont's Northeast Kingdom. The Town of Burke is known for its wide range of outdoor activities from skiing on Burke Mountain, to mountain biking, hiking, and cross-country skiing on over 110 miles of trails maintained by the non-profit group Kingdom Trails.

Burke Town School is located in the village of Burke Hollow on Burke Hollow Road, a class two local roadway which acts as a major connection between West Burke and East Burke. The areas surrounding the school are primarily natural with low-density residential interspersed. The speed limit on Burke Hollow Road is 30 mph toward West Burke and 40 mph toward East Burke. The road has two 11-foot travel lanes with no paved shoulders. Near the school, the posted speed limit is 25 mph. All students biking or walking to school must use Burke Hollow Road.



The star identifies the location of Burke Town School.

The SRTS program at Burke Town School is a key component in the school's efforts to improve the health of its students and community. It builds on the Town's strong inclination toward outdoor recreation and passion for biking and hiking.

Vermont passed Complete Streets legislation which took effect July 1, 2011. Complete Streets policies ensure that state and local transportation agencies consider all users in the design and operation of the right of way to make roads safer and more accessible for all users regardless of age or ability. Complete Streets policies working in tandem with the SRTS travel plan will continue Burke's walkable, bikeable, and sustainable approach.

CURRENT SCHOOL DEMOGRAPHICS

Our school has a total of 181 students enrolled for the 2012-2013 school year. Our school serves grades PreK-8. Burke Town School provides busing to all enrolled students.

Demographic	Count	Percentage of student body
Free/Reduced Lunch	52	29%
Students with Disabilities	31	17%
Limited English proficient students	3	1.7%
Distance From School		
Students living within 1/4 mile of school	0	0%
Students living within 1/2 mile of school	10	6%
Students living within 1 mile of school	28	15%
Students living within 2 miles of school	76	42%
Students in grades K-4	103	57%
Students in grades 5-6	78	43%

CURRENT STUDENT TRAVEL MODES

Travel Mode	Walk	Bike	School Bus	Family Vehicle	Carpool	Public Transit	Other
Percentage of Student Body (AM)	2%	2%	47%	45%	3%	0.7%	0%
Percentage of Student Body (PM)	0.5%	2%	62%	32%	3%	0.5%	0%

Data based on SRTS Student Tallies administered in Spring 2012

SCHOOL ARRIVAL AND DISMISSAL PROCEDURES

Burke Town School relies on policies, practices, and support activities to ensure a safe and orderly process for arrival and dismissal, regardless of how students travel to school. Parents are reminded of these procedures in newsletters and reminders that are sent to students' homes.

The morning bell for Burke Town School rings at 8:00 am. Three buses serve the school – Bandy's Bus, Chappy's Bus, and Pam's Bus. Bandy's Bus arrives first at 7:25 am before heading out again for another round of pick-ups. All three buses then arrive to school at 7:45-7:50 am.

Students walking, biking, and travelling by car arrive staggered before school starts – typically between 7:15 am and 8:00 am. Students travelling by bike currently park adjacent to the parking lot in front of Building 1 on a new bike rack holding up to 18 bikes. The School plans to move this rack to the side of the building in the future, in order to place it in a more secure spot. Students arriving by bus are dropped off in front of Building 2 and make their way directly into that building. Students arriving in family vehicles are dropped off in the rear parking lot near the back side of Building 2.

The school's new 18-bike parking rack in front of Building 1.

Upon arrival, all students gather in the cafeteria of Building 2 where they eat breakfast together. Just before 8:00 am students are dismissed to the playground or main building in order to wait for the day to begin.

Dismissal procedures begin at 2:50 pm with car riders leaving first, and being picked up in the rear parking lot. Bus pickup follows at 2:55 pm with an additional bus picking up students at 3:20 pm. Students are escorted to the front of Building 2 in order to board buses there. Walkers and bike riders are dismissed at 3:00pm.

Students proceed to their classrooms after breakfast.

Arrival		
Travel Mode	**Procedure**	**Time**
Walk	Arrive staggered.	7:15-8:00 am
Bike	Arrive staggered.	7:15-8:00 am
School Bus	Arrive at designated times in front of Building 2.	7:25 am and 7:45-7:50 am
Family Vehicle	Arrive staggered. Dropped off in the rear parking lot behind Building 2.	7:15-8:00 am
Dismissal		
Travel Mode	**Procedure**	**Time**
Family Vehicle	Students are picked up in rear parking lot, at the rear of Building 2.	2:50 pm
Bus	Students walk from Building 1 and board buses lined up in front of Building 2.	2:55 pm
Walk	Students walking are dismissed last so that they may walk safely along Burke Hollow Road after the majority of vehicles have left.	3:00 pm
Bike	Students riding bikes are dismissed last so that they may ride safely along Burke Hollow Road after the majority of vehicles have left.	3:00 pm

EXISTING TRAVEL HABITS

Students travel from all directions to Burke Town School, but only access to the school grounds via Burke Hollow Road. On September 26, 2012, (the cold and rainy day on which our safety observation took place) 0 students were observed bicycling to school and 0 students walking to school.

Parents who drive their children to school listed the following reasons for doing so (the factors are listed from most to least influential):

- Speed of traffic along route
- Distance
- Amount of traffic along route
- Weather or climate
- Sidewalks or pathways are not present along entire walking route
- Safety of intersections and crossings
- Violence or crime
- Time
- Adults to Bike/Walk with
- Child's participation in after school programs
- Convenience of driving
- School crossing guards are not always present at key intersections along walking route

Burke Hollow Road is a key walking and biking route for students. Walking along and crossing it are major concerns.

(Data based on SRTS Parent Survey results administered in September 2012)

The parent surveys (collected in September 2012) showed that if some of the conditions listed above were changed, they would reconsider allowing their children to walk to school. Many of the issues in the list above can be addressed with either infrastructure or non-infrastructure strategies (or in some cases both). We kept these concerns in mind when picking the strategies that we want to accomplish this school year, 2012-2013.

KEY ISSUES

The team identified the following barriers to walking and biking when developing this Travel Plan:

Issue: A lack of sidepaths along Burke Hollow Road and other walking routes in town deters parents from allowing their children to walk or bike to school.

Burke Hollow Road is the only road providing access to Burke Town School. However, there are no sidepaths or shoulders along the road to provide the space needed to walk or bike safely out of the path of vehicular travel. Burke Hollow Road is a critical walking and biking connection to the school grounds, and among all roads would benefit most from bike and pedestrian infrastructure improvements.

Burke Hollow Road does not currently provide space for safe walking and biking.

The Town of Burke conducted a study in 2002 in order to improve pedestrian and biking conditions along Burke Hollow Road from East to West Burke. The town sought recommendations for a shared-use path along the road; however, the study resulted in a proposal for 4 foot wide shoulders on either side of the roadway as a more feasible option. This project has not yet been implemented by the Town as the required length combined with construction costs (estimated at $2.95 million) has been so far prohibitive.

Furthermore, sidewalk maintenance costs have proven to be prohibitive in some areas of town where pedestrian usage does not justify the expenditure. Currently, sidewalks along Railroad Street in West Burke are scheduled for demolition as a result of disuse and maintenance costs. Nevertheless, in East Burke, sidewalks along a major portion of Route 114 have been proposed for restoration and construction in order to provide pedestrian access to town amenities and improve access to school bus stops.

Issue: A lack of marked crossings and challenging sight lines as well as relatively high observed vehicular speeds are present on Burke Hollow Road.

Marked crosswalks are not present on Burke Hollow Road. In particular, the team has noted a direct need to cross Burke Hollow Road safely in front of the school for those walking along the northeast side of the road.

The town study from 2002 (mentioned above) proposed, in addition to shoulders, a crosswalk in front of the school. The town, however, decided not to install a crosswalk on Burke Hollow Road at that time due to concerns that such mid-block crossings are often unexpected by motorists and may not provide the intended level of protection for crossing pedestrians.

Nevertheless, with appropriate pedestrian facilities along either side of Burke Hollow Road, it may be possible to install a safer crossing with advance warning or traffic calming for motor vehicles.

Issue: The lack of a connected network of off-road paths on which students and parents can travel to school.

Burke is known regionally for mountain biking due largely to the vast network of high quality mountain bike trails (110+ miles) maintained by Kingdom Trails. While a large network of trails does exist, little if any of it may be suitable for student use since it is mostly for recreational purposes and not of appropriate quality for general travel. Many trails are remote and parents would not feel comfortable sending children to school on them unaccompanied by an adult. Furthermore, the school has expressed no desire for Kingdom Trails users or others to be connected to or travel on school property due to personal safety concerns. Nevertheless, there may be opportunities in the future to formalize shared-use paths or mountain bike trail access to the school from nearby neighborhoods in order to bypass dangerous roads or intersections.

OVERVIEW: TRAVEL PLAN RECOMMENDATIONS

This Travel Plan is comprised of several sections detailing activities and programs for our school to implement now and projects for us to develop over time with local officials.

Non-Engineering Plan

This Travel Plan identifies best practice education, encouragement, enforcement, and evaluation activities and programs suitable for our school. Information on the advantages and considerations for each strategy, and resources to help us implement each, are included in **Appendix G.**

16–Month SRTS Activity Calendar

Our team will pursue a smaller subset of items in the non-engineering plan during the next 16 months. We will review our work periodically, adding additional activities that will continue the SRTS program momentum. (**Appendix A)**

Engineering Recommendations

With assistance from the Vermont SRTS Resource Center, we have identified short, medium

and long-term engineering treatments to make walking and bicycling to school safer for our students. (**Appendix C**)

Snow Removal Toolkit

Snow, sleet, slush, ice, and rain impact all modes of transportation, and the timely clearance and removal of the elements are essential for the functionality and accessibility of a Safe Routes to School program. A Snow Removal Toolkit can better inform communities about snow removal policies and procedures, and to provide tools to increase compliance and safety. Snow removal recommendations are located in **Appendix H**.

NON-ENGINEERING TRAVEL PLAN

We identified a number of activities and programs to promote walking and biking to school. These activities and programs, while grouped by "The Five E's", are dependent upon each other for their individual success. We plan to work on our highest priority programs this year, following up with other programs in successive years. We used the timeframe below to determine when to initiate programs:

Type	Short	Medium	Long
Encouragement, Education, Enforcement, Evaluation	*What we plan to do this school year*	*What we plan to do next school year*	*What we plan to do starting in two years*

Burke Town School currently organizes and participates in a variety of programs that engage the student population in order to promote walking, biking, and healthy lifestyles. As a result, the school was named "Rookie of the Year" by the VT Safe Routes to School Resource Center for its extraordinary involvement with safe walking and biking activities. Some activities that the school is taking part in or has already established are:

- Planning a week long WalkSmart/Bike Smart Vermont! Curriculum training through Local Motion's Bike Loaner Trailer Program in June to make sure students have the skills needed to stay safe while walking and biking to school.
- Kingdom Sense of Place workshops to teach safe mountain biking skills to students in grades 2 through 8.

- International Walk to School Day and Vermont Walk and Roll to School Day are on our school calendar for the upcoming year, with hopes of repeating the highly successful events held last year.

EDUCATION STRATEGIES

The education strategies included in our 16-month activity calendar are aimed at providing all students with safe pedestrian and biking skills. Our education activities this year will include:

- Scheduling a bike safety week in combination with Local Motion training week in June
- Distributing the Kingdom Trails Pamphlet of the existing trail network during Kingdom Sense of Place workshops
- Providing walking and bicycling safety materials to parents through backpack mail
- Helmet distribution and education each spring by the Sheriff's Department.
- Providing students with walking and bicycling safety education before Walk/Bike to School Days

Other education strategies we will work on after this year are:

- Continuing to engage Kingdom Trails for assistance educating students on safe biking skills through school Trail Club rides and events.
- Incorporating Walk Smart/Bike Smart Vermont! curriculum into 2012/2013 school year
- Sharing tips and tools on school's website and/or newsletter

ENCOURAGEMENT STRATEGIES

Encouragement strategies included in our 16-month activity calendar will help students and their parents feel more comfortable and confident about walking and bicycling to school. Our encouragement activities this year will include:

- Continuing to participate in Kingdom Sense of Place workshops
- Continuing International Walk to School Day and Vermont Walk and Roll to School Day activities each year

Encouraging the use of existing-off road paths is a priority for this travel plan.

- Encouraging the use of park and walk sites for walking school buses and bike trains
- Utilizing the VT SRTS Resource Center incentive items and implementing our own items for biking/walking to school

Other education strategies we will work on after this year are:

- Developing a program for students to walk during recess

ENFORCEMENT STRATEGIES

Our SRTS enforcement strategies are aimed at both changing the behavior of drivers and making the town safer and more secure for students walking to and from school. Our enforcement activities this year will include:

- Working with local enforcement officers to better communicate and address unsafe behaviors
- Providing positive reinforcement to students displaying safe and healthy behaviors (Paws of Praise, PBIS – Positive Behavior Intervention Support)
- Request temporary speed trailer/feedback machine for Burke Hollow Road from the Sheriff's Department.

Enforcement of existing town policies and regulations is a major component of this travel plan

EVALUATION STRATEGIES

Evaluation is an important component of our SRTS program. We plan to complete regular evaluation tools, such as the student tally and parent survey forms provided by National Center for Safe Routes to School (NCSRTS). We first administered these in October 2011, which provided base line information on student travel behavior. Subsequent student tallies were completed in May of 2012. Over the course of a school year Burke Town School was able to

increase the number of bikers by 1%! Parent surveys will help us measure the effectiveness of SRTS efforts over time and will be completed in the Fall of 2012.

We will continue to conduct annual walk audits to evaluate the existing walking and biking environment, as well as monitor the progress of recommended projects.

Other evaluation strategies we will work on after this year are:

- Administering the parent surveys annually to capture opinions of new parents and change in overall parental perceptions
- Collecting student tally data each year to measure our progress towards goals
- Keeping the SRTS Travel plan updated and using it as tool for increased SRTS activities

Evaluation Tool	Leader	Schedule
Parent Surveys	PE Teacher	Annually, Fall
Student Tallies	PE Teacher	Annually Spring and Fall
Walk Audits	SRTS Team	Annually, within first two months of school

ENGINEERING TRAVEL PLAN

Our goal for these engineering improvements is to enhance the physical environment along existing walking routes that students use. Engineering improvements generally fall into three categories: providing sidewalks and paths, improving crossings, and infrastructure projects associated with improving the safety of school drop-off and pick-up practices. Descriptions of typical engineering recommendations can be found in **Appendix B.**

We recognize that infrastructure improvements can take time to complete and are a collaborative effort between Burke Town School, the Town of Burke and potentially the Vermont Agency of Transportation (VTrans) to implement the projects. The following short, medium and long timeframes are a guide for anticipated project completion, but actual timeframes may vary:

Short term	**Within 2 years**
Medium term	**Within 5 years**
Long term	**Longer than 5 years**

The team prioritized the infrastructure improvements as high, medium, or low. The factors affecting this ranking include:

- Locations with specific safety concerns
- Locations along existing student walking or bicycling routes, or with a significant number of school family residences
- Locations that are priorities for the school community

Engineering Recommendations for specific locations in the vicinity of Burke Town School can be found in **Appendix C.**

CONSIDERATIONS FOR DESIGN AND FUNDING

Design

- All infrastructure recommendations in this plan are considered "planning level" and will require further engineering analysis, design, or public input before implementation.

- Recommended changes to existing traffic patterns (adding a signal, adding a stop sign, changing lane patterns, etc.) will require a study to evaluate the potential impact that the recommendation could have on existing traffic conditions.

- Drainage, existing utilities and ADA compliance will need to be evaluated for all recommendations at the time of design. ADA guidelines recommend particular design features to accommodate persons with disabilities. ADA design considerations for curb ramps, sidewalks and paths, include appropriate slopes, landing areas, surface conditions, and use of detectable warning materials for visually impaired pedestrians, among other design features.

- Right-of-way was not evaluated as a part of this project. Recommendations assume that sufficient right-of-way exists or that a method to gain needed right-of-way will be identified as a project progresses.

- VTrans district office staff will be involved in the planning and design process for any recommendation made on the State system.

- All infrastructure recommendations should comply with federal, state, and local standards including the American Association of State Highway and Transportation Officials' Policy on Geometric Design of Highways and Streets and the Manual on Uniform Traffic Control Devices (MUTCD).

- Refer to the Vermont Pedestrian and Bicycle Facility Planning and Design Manual for guidelines on pedestrian and bicycle accommodations.

Funding

- A variety of funding sources may be used for the recommendations. For example, projects requiring right-of-way acquisition or existing utilities relocation are not typically eligible with SRTS funds, but may be funded through other sources.

More information on the types of projects eligible for SRTS funding through VTrans can be found online at: saferoutes.vermont.gov/getting_started/funding.

APPPENDICES

A. Non-Infrastructure Strategies Calendar

B. Typical Infrastructure Recommendations

C. Location-Specific Engineering Recommendations (Recommendations Table, Location Keys)

D. Burke Town School Student Population

E. School Profile

F. Student Travel Tally/Parent Survey Reports October 2011, May 2012, September 2012

G. Non-Engineering Strategies Resource Guide

H. Snow Removal Toolkit

I. Infrastructure Strategies Resource Guide

APPENDIX A

NON-INFRASTRUCTURE STRATEGIES CALENDAR

Appendix A Non-Infrastructure Calendar

Activity		Sept 2012	Oct 2012	Nov 2012	Dec 2012	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	June 2013	July 2013	Aug 2013	Sept 2013	Oct 2013	Nov 2013	Dec 2013
EDUCATION																	
Scheduling a bike safety week in combination with Local Motion training week in June																	
Lead	PE teacher																
Plan																	
Implement																	
Distributing the Kingdom Trails Pamphlet of the existing trail network during Kingdom Sense of Place workshops																	
Lead	PE Teacher																
Plan																	
Implement																	
Providing walking and bicycling safety materials to parents through backpack mail																	
Lead	PE teacher																
Plan																	
Implement																	
Helmet distribution and education each spring by the Sheriff's Department																	
Lead	Caledonia County Sheriff/PE Teacher																
Plan																	
Implement																	
Providing students with walking and bicycling safety education before Walk/Bike to School Days																	
Lead	PE teacher																
Plan																	
Implement																	
ENCOURAGEMENT																	
Continuing to participate in Kingdom Sense of Place workshops																	
Lead	PE teacher																
Plan																	
Implement																	
Continuing International Walk to School Day and Vermont Walk and Roll to School Day activities each year																	
Lead	Principal/PE Teacher																
Plan																	
Implement																	
Encouraging the use of park and walk sites for walking school buses and bike trains																	
Lead	PE teacher																
Plan																	
Implement																	
Utilizing the VT SRTS Resource Center incentive items and implementing our own items for biking/walking to school																	
Lead	PE teacher																
Plan																	
Implement																	

Activity		Sept 2012	Oct 2012	Nov 2012	Dec 2012	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	June 2013	July 2013	Aug 2013	Sept 2013	Oct 2013	Nov 2013	Dec 2013
ENFORCEMENT																	
Working with local enforcement officers to better communicate and address unsafe behaviors																	
Lead	Caledonia County Sheriff/Principal																
Plan																	
Implement																	
Providing positive reinforcement to students displaying safe and healthy behaviors (Paws of Praise, PBIS – Positive Behavior Intervention Support)																	
Lead	Principal																
Plan																	
Implement																	
Request temporary speed trailer/feedback machine for Burke Hollow Road from the Sheriff's Department.																	
Lead	Caledonia County Sheriff/Principal																
Plan																	
Implement																	
EVALUATION																	
Parent Survey																	
Lead	PE teacher																
Plan																	
Implement																	
Student Tallies																	
Lead	PE teacher																
Plan																	
Implement																	
Conduct annual walking audit																	
Lead	PE teacher																
Plan																	
Implement																	

APPENDIX B

TYPICAL INFRASTRUCTURE RECOMMENDATIONS

APPENDIX B TYPICAL INFRASTRUCTURE RECOMMENDATIONS

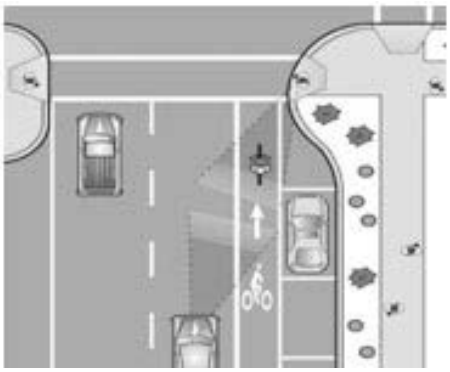
The following infrastructure recommendations are typical treatments used in SRTS projects. These recommendations may or may not be included in this travel plan. The basic information is provided to give an overall understanding and implementation guidance on each treatment.

Rectangular Rapid Flashing Beacons:

Rectangular rapid flashing beacons (RRFB), as shown to the left, are warning beacons used to increase visibility of students and all pedestrians as they cross the roadway at uncontrolled crosswalks. This type of signal is pedestrian-activated, i.e., the signal will only flash if a pedestrian has pushed a button, indicating that they need to cross the street. Any proposed RRFB locations need to meet current guidance provided in the interim approval of the Manual on Uniform Traffic Control Devices (MUTCD). For proposed uncontrolled crosswalks on state maintained roads, VTrans approval and justification are needed.

Curb Extensions:

Curb extensions, as shown below, are recommended to reduce pedestrian crossing distances (and thus exposure to traffic) and to slow motor vehicle turning speeds at intersections. Curb extensions located along school bus routes should effectively calm traffic, but not impede buses from making the turn. Design considerations should include the appropriate design vehicle, maintenance concerns, and snow plow accommodations depending on the roadway jurisdiction.



Curb Radius Reductions:

Curb radius reductions are recommended to slow motor vehicle turning speeds and to reduce pedestrian crossing distances (and thus exposure to traffic). Curb radius reductions involve

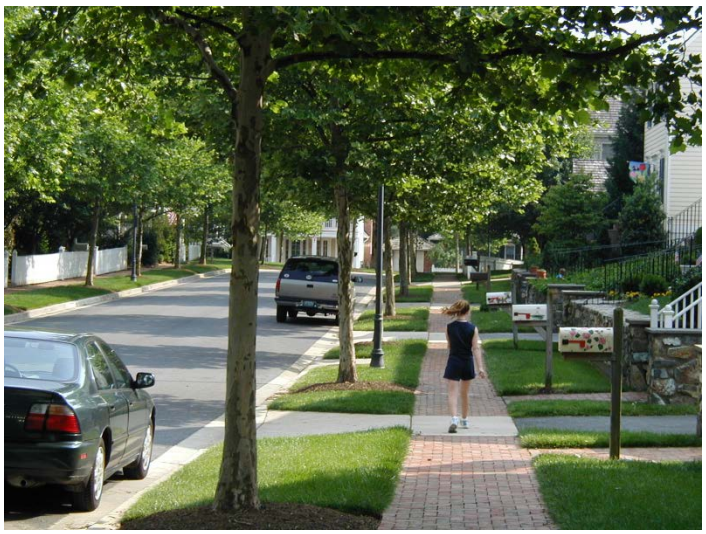
tightening the motor vehicle turning radius at an intersection, as shown to the left, without extending the curb line into a parking lane. Curb radius reductions located along school bus routes should effectively calm traffic but not impede buses from making the turn. Design considerations for curb radius reductions include the appropriate design vehicle depending on the roadway jurisdiction and ADA compliance.

<u>High Visibility Crosswalks:</u>

High visibility crosswalk striping improves the visibility of pedestrians to motorists. Different striping patterns can be used and the most common patterns are variations of the ladder style, shown right. Reflective durable materials should be used to resist decay.

<u>Sidewalks and buffers:</u>

One of our long-term goals is to establish a well-connected sidewalk network throughout the neighborhoods so that families can walk for more of their daily trips, rather than drive. Sidewalks are the most effective when they include a buffer. This buffer increases pedestrian comfort and safety and can also serve as a place for pedestrian "overflow", especially closer to the school where groups of walkers are largest. Based on Vermont Pedestrian and Bicycle Facility Planning and Design Manual, the preferred design for sidewalks is a minimum six foot wide sidewalk with a minimum two foot wide buffer for local roadways with curbs. For downtowns and village centers on roadways with curbs, the preferred design for sidewalks is a minimum eight foot wide sidewalk with a minimum four foot wide buffer. For roadways without curbs, the buffer should be a minimum of five feet. Available right of way will impact the ultimate design of the sidewalk.



School Zone Identification:

School pavement markings are recommended to alert motorists that they are entering a school zone where pedestrians may be present both along and crossing the roadway. New pavement markings can work with existing school zone signs to reinforce the message to motorists about the school zone. The detail provided in the figure below is an excerpt of the MUTCD.

Speed Feedback Signs:

Communities may use a mobile "speed trailer" that can be placed in locations where motorists exceed the speed limit often enough that passive enforcement is appropriate. Permanently installed feedback signs, shown right, provide ongoing information to motorists about the speed at which they are traveling. SRTS recommended any potential feedback signs be strategically located at main access points.

For towns interested in reducing the speed limit of a roadway, an engineering study needs to be conducted by the town. Approval from VTrans is needed for state maintained roads.

Pedestrian Refuge Island:

A Pedestrian refuge island, as shown right, may be used to narrow the roadway, reduce motor vehicle speeds, and improve pedestrian crossings. In locations with crosswalks, these islands improve pedestrian safety and access by reducing crossing distances and enable pedestrians to cross roadways in two stages. Pedestrian refuge islands should be used on multi-lane roadways or roadways with insufficient vehicular gaps to pedestrians to safely cross. Prior to design, a gap study should be conducted. Other considerations for pedestrian refuge islands include ADA compliance, maintenance concerns, and snow plow accommodations.

APPENDIX C

LOCATION SPECIFIC ENGINEERING RECOMMENDATIONS

Appendix C: Location-Specific Engineering Recommendations

SRTS engineering strategies create safer environments for walking and bicycling to school through improvements to the infrastructure surrounding them. These improvements focus on reducing motor vehicle speeds and conflicts with pedestrians and bicyclists, as well as establishing safer and fully accessible crossings, walkways, trails, and bikeways.

The following table provides a summary of the engineering strategies recommended for the Burke Town School. These recommendations were developed by Toole Design Group, LLC based on input from the Burke Town School SRTS Team. The table includes an estimate of the amount of time that is likely needed to implement the recommended improvements at each site (Estimated Time Frame). The table also indicates the priority of the proposed improvements at each site for the Burke Town School SRTS Team (Team Priority).

These recommendations are for planning purposes only and may require further engineering analysis, design, or public input before implementation and shall be in full compliance with the Manual on Uniform Traffic Control Devices for Streets and Highways, (MUTCD) Latest Edition adopted by the state.

The summary table provided below is followed by information about implementation and a map which shows where the recommendation sites are located in relation to the school.

Description of Streets with Engineering Recommendations

Street name	Classification of Town Highways	Speed Limit	Curb/No curb & Surface
Burke Hollow Road	Class Two	30-40	No curb, asphalt
McDowell Road	Class Three	20	No curb, gravel
Bugbee Crossing Road	Class Three	35	No curb, gravel/asphalt

Site	Need	Recommendation	Time Frame	Ranking Factors	Team Priority
A Burke Hollow Road Burke Hollow Road is a two-way Class Two road with two, 11-foot travel lanes. The speed limit is 30 mph toward East Burke and 40 mph toward West Burke. School Zones of 25 mph exist on either side of the school. Burke Hollow Road is the only road that provides direct access to Burke Town School.	With students traveling from all directions to access the school, it is highly desirable for the community to have safe pathways and crosswalks to access the school. The lack of sidewalks and pedestrian crossings on Burke Hollow Road does not properly alert motorists that pedestrians are present and creates uncomfortable walking conditions for the length of this corridor.	A1. Construct ADA-compliant, 5-foot wide shoulders or a shared-use path along Burke Hollow Road from Bugbee Crossing Road to McDowell Road (appx. 7,000 linear feet). If constructed in segments, first priority should be from the school towards West Burke. Shoulders must be constructed on both sides of the roadway, whereas a separated path should use the south-side of the roadway.	Long term	☑ *Safety concerns.* ☑ *Existing walking or bicycling routes.* ☑ *Priorities for the school community.*	High
		A2. Investigate the opportunity to install a high-visibility, durable, ladder-style crosswalk in front of the school across Burke Hollow Road if shoulders are constructed in A1. Any investigation must take into account VT Crosswalk Standards for midblock crossings, specifically meeting the minimum ADT requirement of 3000 vehicles.	Long term		
		A3. Install two high-visibility, durable, ladder-style crosswalks: one across the school entry driveway and one across the exit driveway.	Long term		

Site	Need	Recommendation	Time Frame	Ranking Factors	Team Priority
A Burke Hollow Road (cont.)		A4. Install and maintain a removable in-street "Yield to Pedestrian within Crosswalk" placard on the roadway centerline in the event of crosswalk installation.	Long term	☑ *Safety concerns.* ☑ *Existing walking or bicycling routes.* ☑ *Priorities for the school community.*	High
		A5. Install School Crosswalk Warning signage, S1-1 and W16-9p in advance of the crosswalk, and signs S1-1 and W-16-7p at the crosswalk in the event of crosswalk installation.	Long term		
		A6. Install "SCHOOL" pavement markings on Burke Hollow Road 200' in advance of the school driveways.	Short term		
		A7. Install solar powered speed feedback signage on existing school zone signs along Burke Hollow Road.	Short term		

Site	Need	Recommendation	Time Frame	Ranking Factors	Team Priority
B School Front Parking Lot and Driveways The school ground entry and exit driveways function as one-way pairs providing entry via the northern driveway and exit via the southern driveway.	The front parking lot does not provide a designated path for pedestrians and bicyclists to travel between Burke Hollow Road and the school entrance.	B1. Install an ADA-compliant walkway along the SE side of the exit driveway from the existing walkway in front of Building One to the proposed crosswalk location in A2 on Burke Hollow Road (appx. 125 linear feet).	Short term	☑ *Safety concerns.* ☑ *Existing walking or bicycling routes.* ☑ *Priorities for the school community.*	High
		B2. Install an ADA-compliant pathway along the SE side of the entry driveway from Burke Hollow Road to the proposed sidewalk along the rear of Building 2 in E2 (appx. 175 linear feet).	Medium term		
		B3. Install a high-visibility, durable, ladder-style crosswalk across the bus driveway adjacent to Building Two.	Medium term		
		B4. Install ADA-compliant curb ramps at the ends of the proposed crosswalk in B3.	Medium term		

Site	Need	Recommendation	Time Frame	Ranking Factors	Team Priority
C Off-Road Paths on or connecting to school grounds	The town has a large amount of off-road paths and open space, but none of it is currently used to provide off-road connections for students to the school. Most existing trails are recreational in nature and remote. It may be possible in the future to construct some trails within the school grounds, from the south near Bugbee Crossing Road, or from the west near Hayden's Crossing.	C1. Continue to work with Kingdom Trails on strategies for connecting with their existing path network. New path connections will require necessary easements and permits, and parcel ownership verification for any proposed path alignment.	Long term	☑ *Safety concerns.* ☑ *Existing walking or bicycling routes.* ☑ *Priorities for the school community.*	Low

Site	Need	Recommendation	Time Frame	Ranking Factors	Team Priority
D Bike Parking on School Grounds	Bicycle parking is currently located in front of Building One adjacent to the front parking lot. Bike parking was recently upgraded from an informal location in the rear of the main building to the new rack in front. Some members of the school community have expressed concern for the safety of bicycles in the new location.	D1. Relocate bike parking to the side of Building One in a well-lighted, secure location and install secure bicycle racks.	Short term	☑ *Safety concerns.* ☑ *Existing walking or bicycling routes.* ☑ *Priorities for the school community.*	High
		D2. Install a covered, secure facility for bicycle parking in a well-lighted convenient location.	Long term		

Site	Need	Recommendation	Time Frame	Ranking Factors	Team Priority
E School Rear Parking Lot The rear parking lot is currently composed of crushed gravel. Asphalt walkways run around the SE half of the parking lot connecting Building 2 to the Middle School Building via pathways leading to Building One.	The rear parking lot currently functions as a one-way loop during arrival and dismissal for parents dropping-off and picking-up children. Since it is made of gravel, safety cones and temporary signage must be placed in order to control the flow of traffic. Plans are in place to pave and stripe the rear parking lot, adding curbs and sidewalks where existing pathways are located. And extending the sidewalk along the rear of Building 2 to the edge of the entry/exit drive. Plans to formalize traffic flow in the rear parking lot with permanent, MUTCD-compliant signs and striping should continue in order to improve the pedestrian environment.	E1. Pave and stripe the rear parking lot, adding MUTCD compliant striping and signage for automobile traffic where necessary for traffic control.	Short term	☑ *Safety concerns.* ☑ *Existing walking or bicycling routes.* ☑ *Priorities for the school community.*	High
		E2. Construct sidewalks and curbs around the NE, SW, and SE edges of the parking lot, where current asphalt paths are located (appx. 350 linear feet).	Short term		

Burke Town School Location Key 1 of 2

Burke, VT
October 2012

- School Location
- Segment Improvement
- Intersection/Spot Improvement
- School Arrival/Dismissal Location

VERMONT Safe Routes to SCHOOL

TooleDesignGroup

North

McDowell Road

Walking School Bus Location

A1

Hayden Crossing

.25 mile

.5 mile

1 mile

A7

A6

Burke Hollow Road

Burke Town School

A6

A7

A1

Sugarhouse Road

Burke Hollow Road

Lynburke Road

C1

Bugbee Crossing Road

Brook Road

Burke Town School Location Key 2 of 2

Burke, VT
October 2012

School Location
Segment Improvement
Intersection/Spot Improvement
School Arrival/Dismissal Location

VERMONT Safe Routes to SCHOOL

TooleDesignGroup

APPENDIX D

STUDENT POPULATION

VERMONT Safe Routes to SCHOOL

Burke Town School Student Address Locator

Burke, VT
October 2012

School Location
Student Residence
Multiple Student Residences

TooleDesignGroup

APPENDIX E

SCHOOL PROFILE

Vermont Safe Routes to School
Partnership Form

SafeRoutes
Vermont Safe Routes to School

Please complete entire form and return to info@saferoutesvt.org or fax to 802.828.5712. Forms can also be sent to: Vermont Agency of Transportation, Program Development - LTF, 1 National Drive, Montpelier, VT 0563-5001, Attn: Aimee Pope.

School Name: Burke Town School

Address: 3093 Burke Hollow Rd. W. Burke, VT 05871

Telephone: 802-467-3385 Fax: 802.467.3303

School Hours: 8 a.m. - 3 p.m.

1. Do you have an existing Safe Routes to School Program? YES (NO)

   If yes, please check the SRTS Elements your school currently participates in:

   __ Education __ Enforcement __ Encouragement __ Evaluation __ Engineering

2. Has your school completed a SRTS Travel Plan? YES (NO)

   If no, would you like to be considered for hands-on Travel Plan assistance offered by the Resource Center? (YES) NO

3. How many students attend this school? List total student population per grade:

K	1	2	3	4	5	6	7	8
17	21	23	23	19	17	14	20	27

4. Approximately what percentage of students live within one mile 4.89 or two miles 42.4 of the school?

5. Approximately how many students currently walk 0 or bike 0 to school?

6. How many crossing guards are assigned to this school? 0

7. Please CHECK the stakeholders that will participate in the SRTS Program:

   ✓ Principal ✓ Parents ✓ School staff __ Safety/Patrol Officer __ Local Health Department

   ✓ Local Planning or Engineering Department __ Other: STUDENTS

The below contacts express their interest and support of becoming a Safe Routes to School Partner

Main Point of Contact(s)

Name Stacy L.P. Rice

Title Principal

Email SRice@cvsuschools.org

Telephone 802-467-3385 x 101

Principal Information

Name Stacy L.P. Rice

Signature Stacy L P Rice Date 7-22-11

Email SRice@cvsuschools.org

Comments:

APPENDIX F

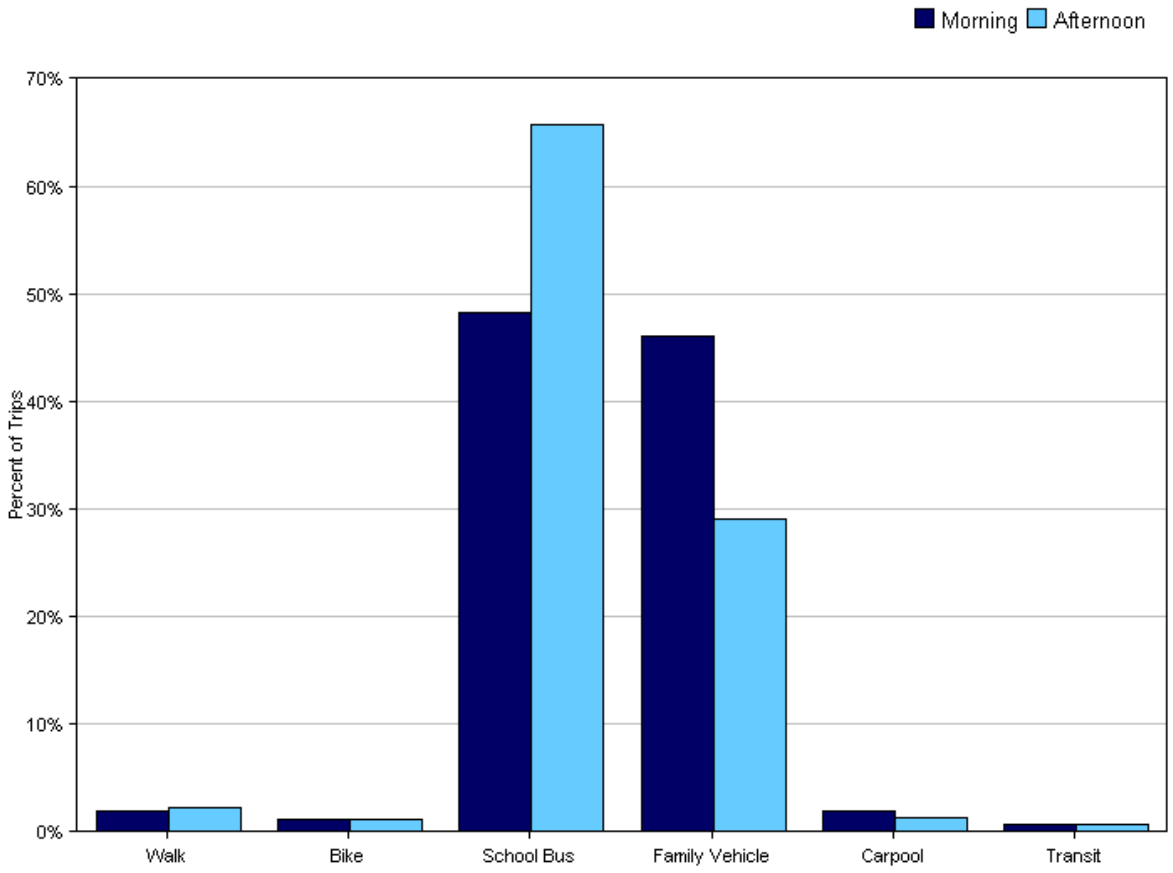
STUDENT TRAVEL TALLY AND PARENT SURVEY REPORTS

Tally Report Summary

Program Name:	Burke Town School	**Month and Year Collected:**	October 2011
School Name:	Burke Town School	**Set ID:**	9596
School Enrollment:	181	**Date Report Generated:**	06/21/2012
Enrollment within Grades Targeted by SRTS Program:	181	**Number of Classrooms Included in Report:**	10
Number of Classrooms in School:	10		

This report contains information from parents about their children's trip to and from school. The data used in this report were collected using the in-class Student Travel Tally questionnaire from the National Center for Safe Routes to School.

Morning and Afternoon Travel Mode Comparison

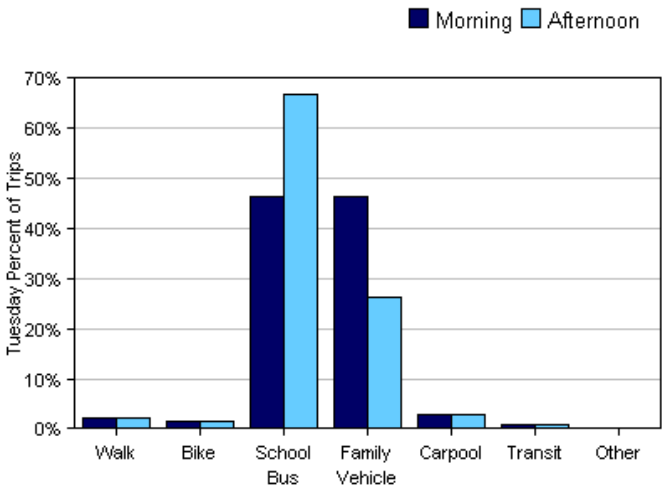


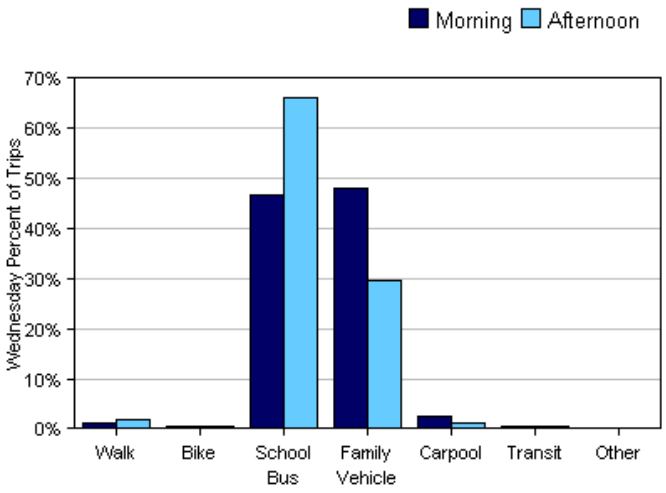
Morning and Afternoon Travel Mode Comparison

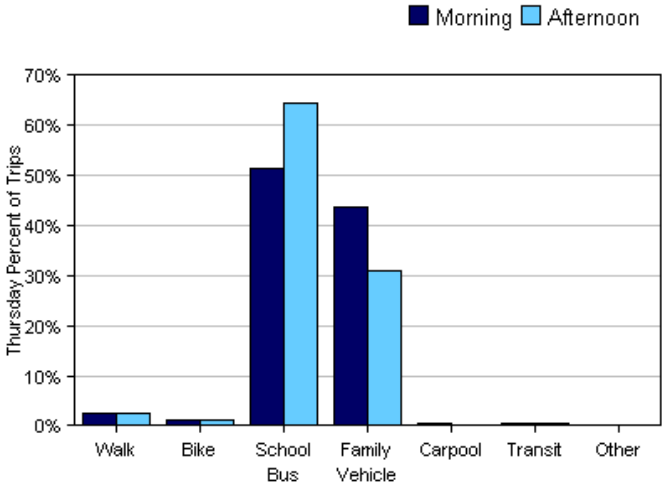
	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	454	2%	1%	48%	46%	2%	0.7%	0%
Afternoon	458	2%	1%	66%	29%	1%	0.7%	0%

Percentages may not total 100% due to rounding.

Morning and Afternoon Travel Mode Comparison by Day





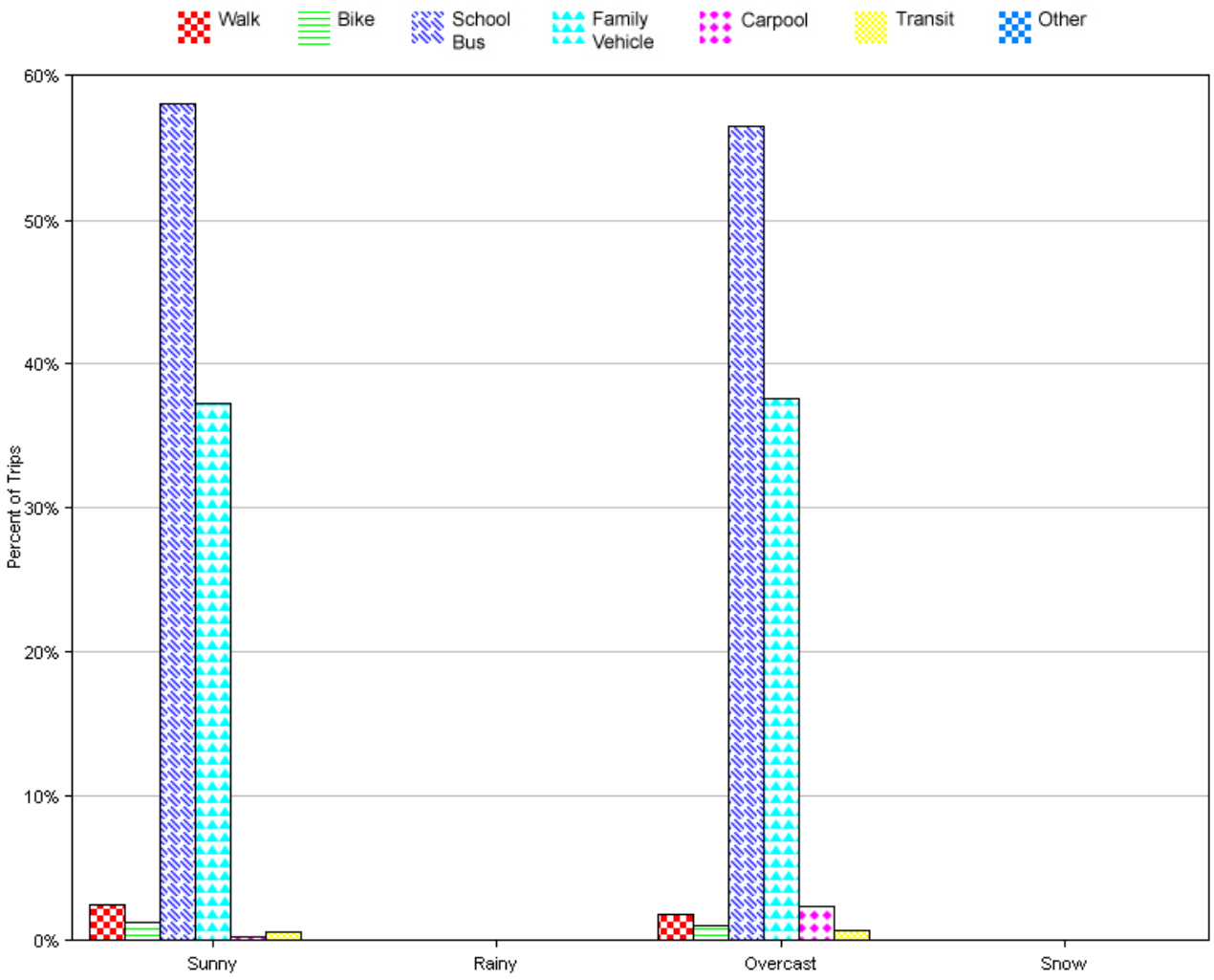


Morning and Afternoon Travel Mode Comparison by Day

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tuesday AM	142	2%	1%	46%	46%	3%	0.7%	0%
Tuesday PM	141	2%	1%	67%	26%	3%	0.7%	0%
Wednesday AM	156	1%	0.6%	47%	48%	3%	0.6%	0%
Wednesday PM	156	2%	0.6%	66%	29%	1%	0.6%	0%
Thursday AM	156	3%	1%	51%	44%	0.6%	0.6%	0%
Thursday PM	161	2%	1%	65%	31%	0%	0.6%	0%

Percentages may not total 100% due to rounding.

Travel Mode by Weather Conditions



Travel Mode by Weather Condition

Weather Condition	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Sunny	317	3%	1%	58%	37%	0.3%	0.6%	0%
Rainy	0	0%	0%	0%	0%	0%	0%	0%
Overcast	595	2%	1%	56%	38%	2%	0.7%	0%
Snow	0	0%	0%	0%	0%	0%	0%	0%

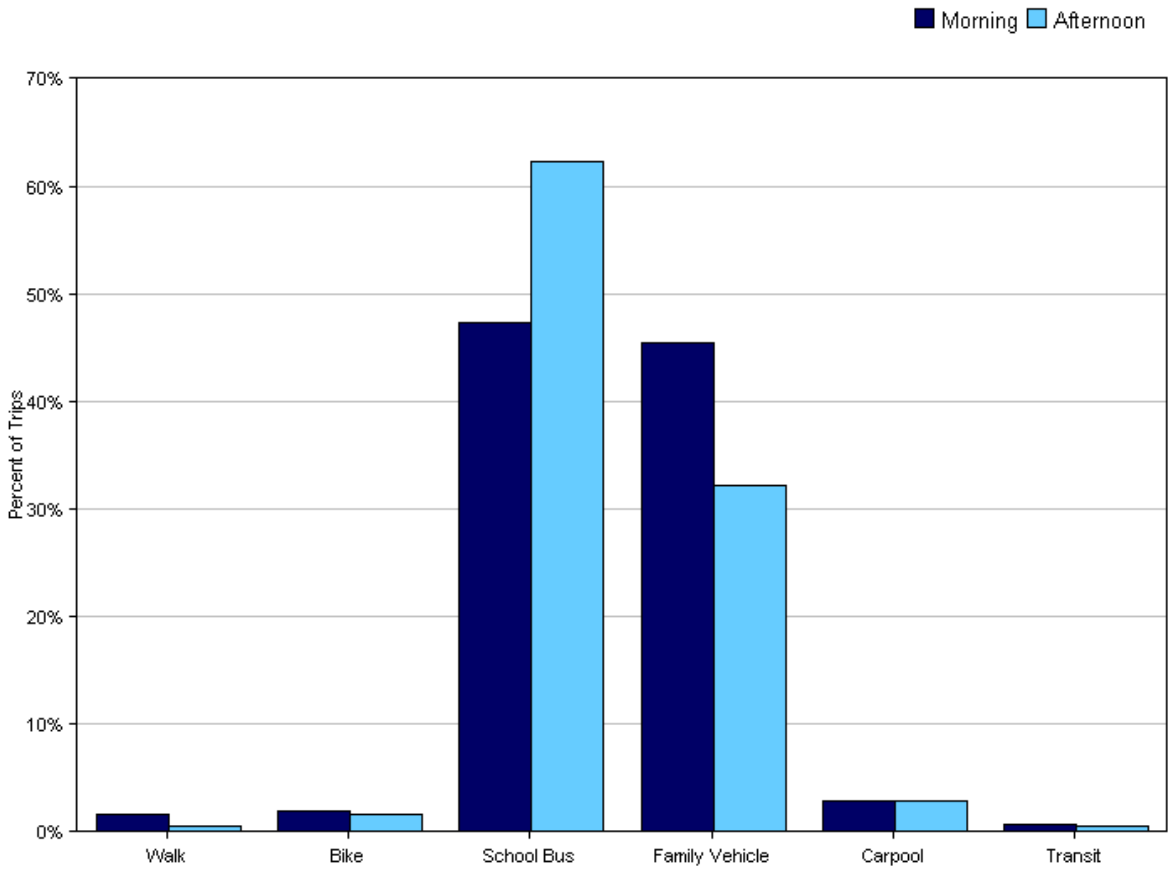
Percentages may not total 100% due to rounding.

Tally Report Summary

Program Name:	Burke Town School	**Month and Year Collected:**	May 2012
School Name:	Burke Town School	**Set ID:**	9597
School Enrollment:	181	**Date Report Generated:**	06/21/2012
Enrollment within Grades Targeted by SRTS Program:	181	**Number of Classrooms Included in Report:**	8
Number of Classrooms in School:	10		

This report contains information from parents about their children's trip to and from school. The data used in this report were collected using the in-class Student Travel Tally questionnaire from the National Center for Safe Routes to School.

Morning and Afternoon Travel Mode Comparison

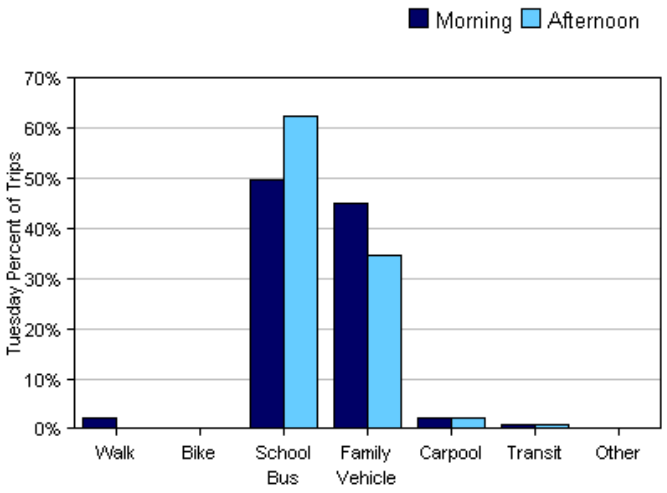


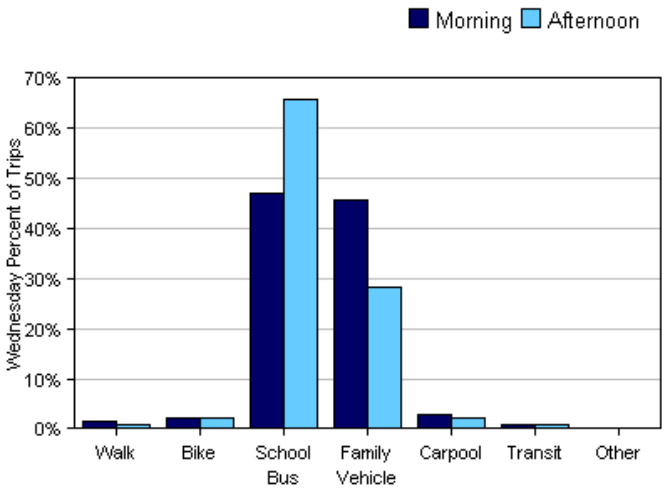
Morning and Afternoon Travel Mode Comparison

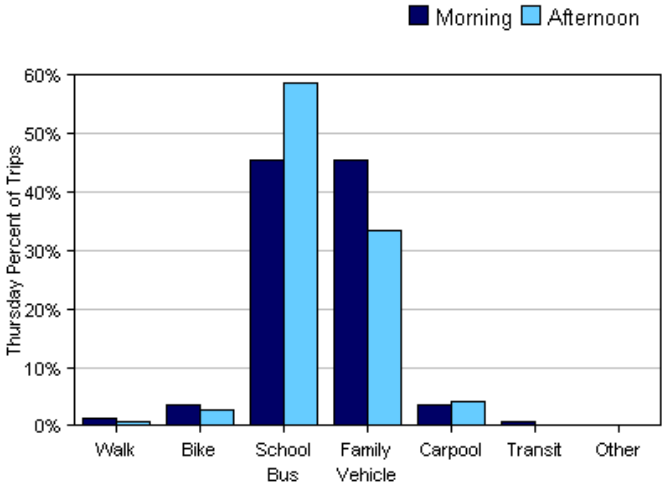
	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	416	2%	2%	47%	45%	3%	0.7%	0%
Afternoon	411	0.5%	2%	62%	32%	3%	0.5%	0%

Percentages may not total 100% due to rounding.

Morning and Afternoon Travel Mode Comparison by Day





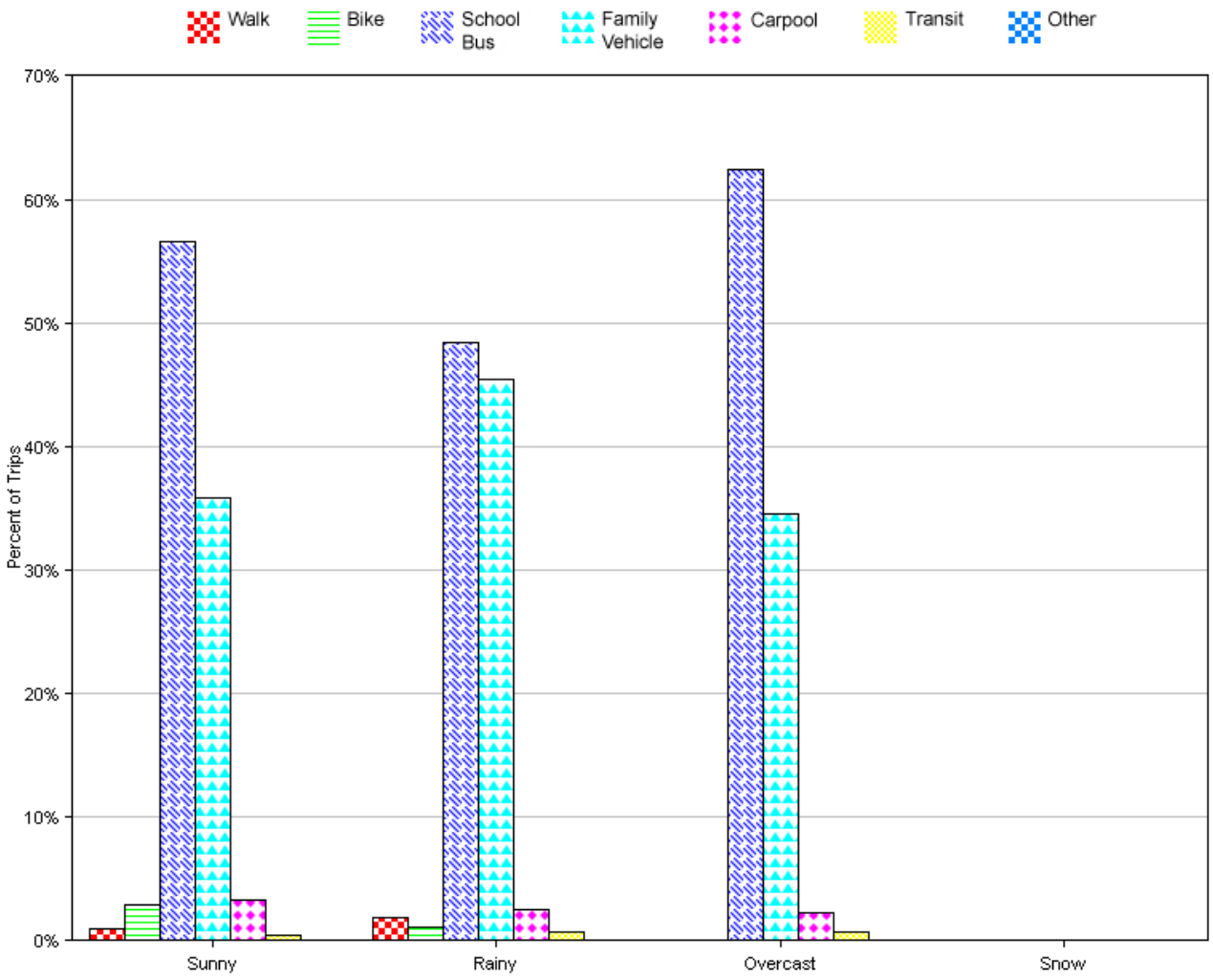


Morning and Afternoon Travel Mode Comparison by Day

	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Tuesday AM	135	2%	0%	50%	45%	2%	0.7%	0%
Tuesday PM	133	0%	0%	62%	35%	2%	0.8%	0%
Wednesday AM	140	1%	2%	47%	46%	3%	0.7%	0%
Wednesday PM	138	0.7%	2%	66%	28%	2%	0.7%	0%
Thursday AM	141	1%	4%	45%	45%	4%	0.7%	0%
Thursday PM	140	0.7%	3%	59%	34%	4%	0%	0%

Percentages may not total 100% due to rounding.

Travel Mode by Weather Conditions



Travel Mode by Weather Condition

Weather Condition	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Sunny	419	1.0%	3%	57%	36%	3%	0.5%	0%
Rainy	275	2%	1%	48%	45%	3%	0.7%	0%
Overcast	133	0%	0%	62%	35%	2%	0.8%	0%
Snow	0	0%	0%	0%	0%	0%	0%	0%

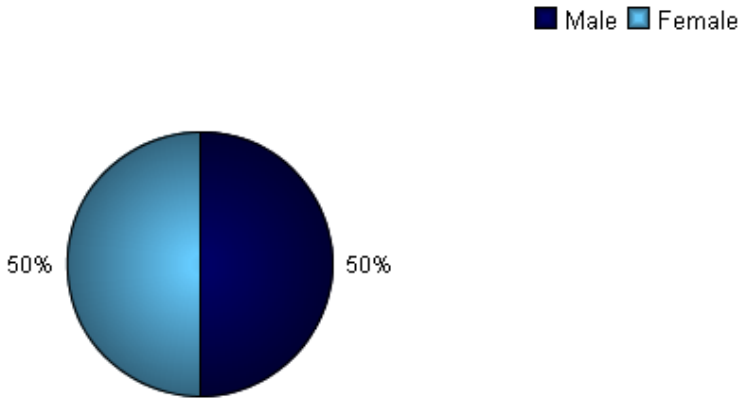
Percentages may not total 100% due to rounding.

Parent Survey Summary

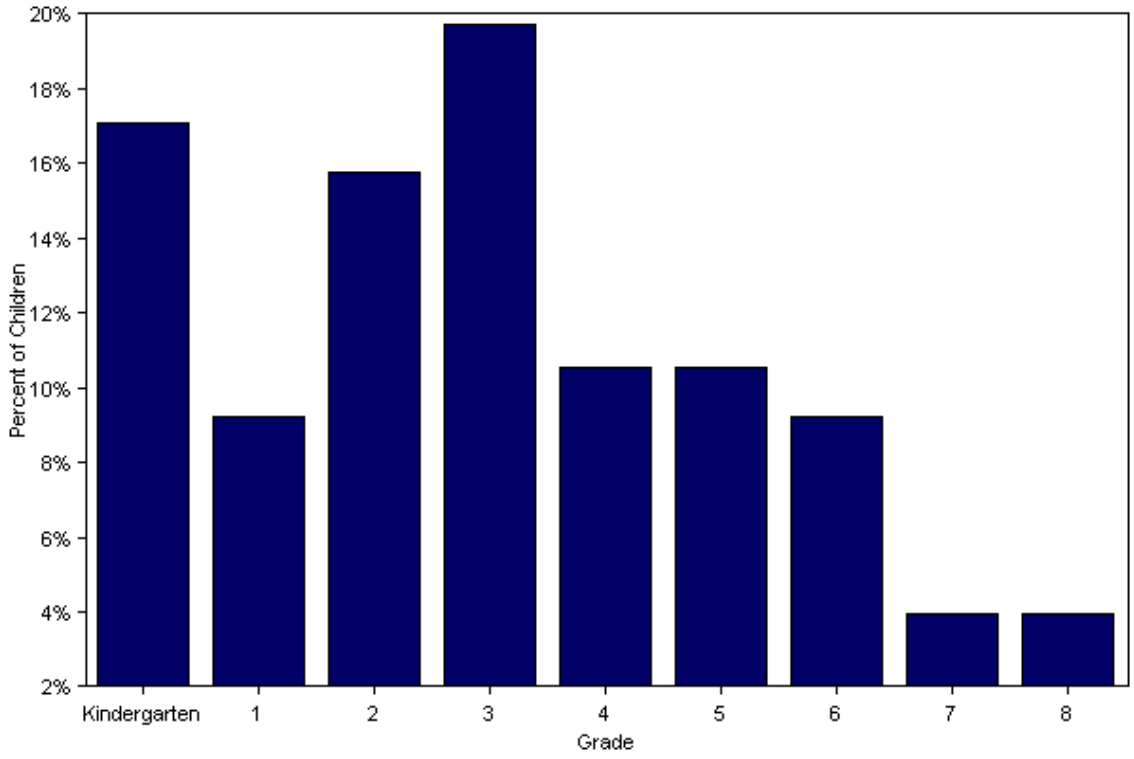
Program Name:	Burke Town School	**Month and Year Collected:**	September 2012
School Name:	Burke Town School	**Set ID:**	8681
School Enrollment:	181	**Date Report Generated:**	10/15/2012
Enrollment within Grades Targeted by SRTS Program:	181	**Number of Questionnaires Analyzed for Report:**	77
Number of Questionnaires Distributed:	181		

This report contains information from parents about their children's trip to and from school. The report also reflects parents' perceptions regarding whether walking and bicycling to school is appropriate for their child. The data used in this report were collected using the Survey about Walking and Biking to School for Parents form from the National Center for Safe Routes to School.

Sex of children for parents that provided information



Grade levels of children represented in survey

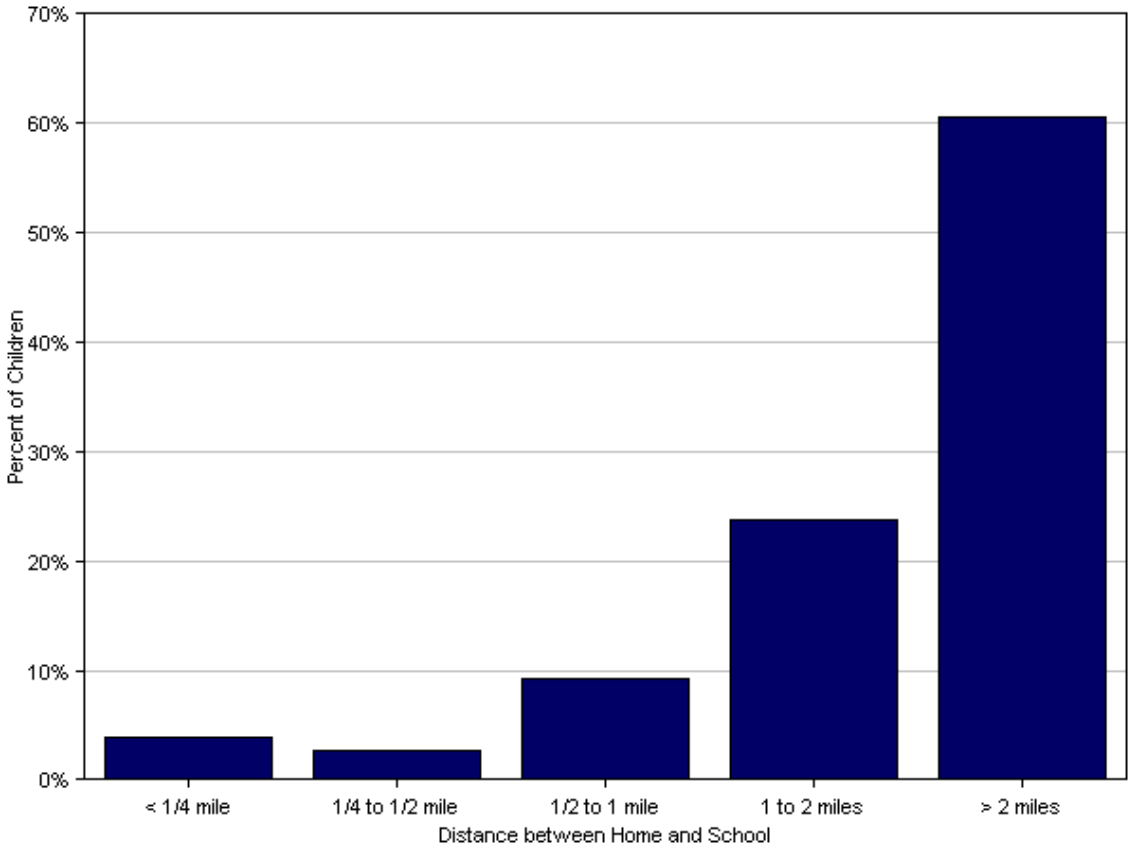


Grade levels of children represented in survey

Grade in School	Responses per grade	
	Number	Percent
Kindergarten	13	17%
1	7	9%
2	12	16%
3	15	20%
4	8	11%
5	8	11%
6	7	9%
7	3	4%
8	3	4%

No response: 0
Percentages may not total 100% due to rounding.

Parent estimate of distance from child's home to school

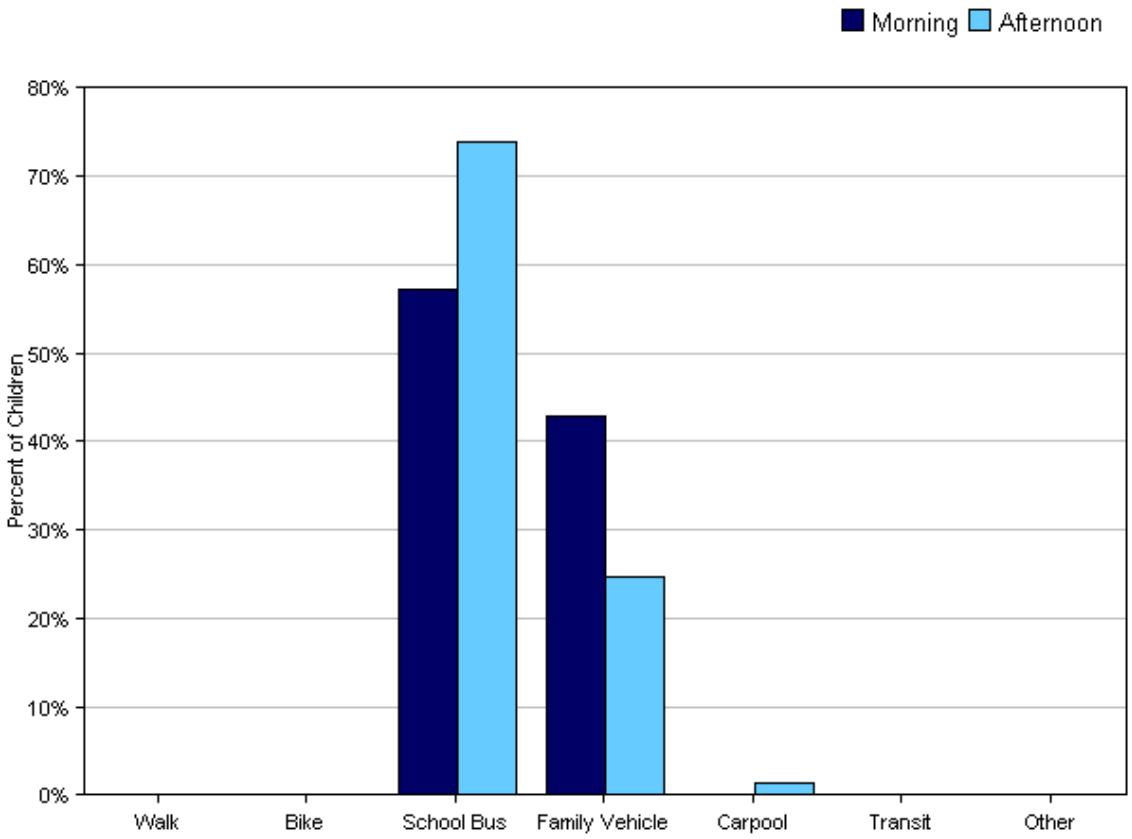


Parent estimate of distance from child's home to school

Distance between home and school	Number of children	Percent
Less than 1/4 mile	3	4%
1/4 mile up to 1/2 mile	2	3%
1/2 mile up to 1 mile	7	9%
1 mile up to 2 miles	18	24%
More than 2 miles	46	61%

Don't know or No response: 1
Percentages may not total 100% due to rounding.

Typical mode of arrival at and departure from school

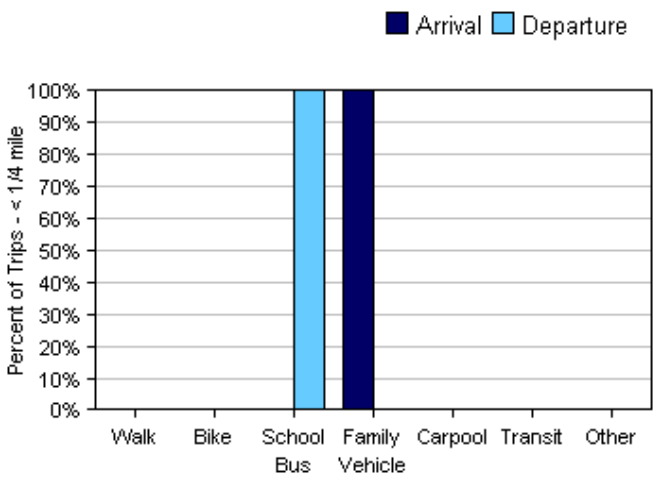


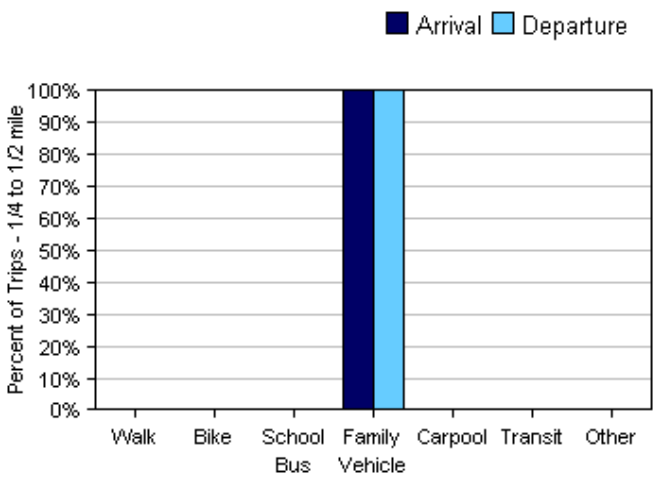
Typical mode of arrival at and departure from school

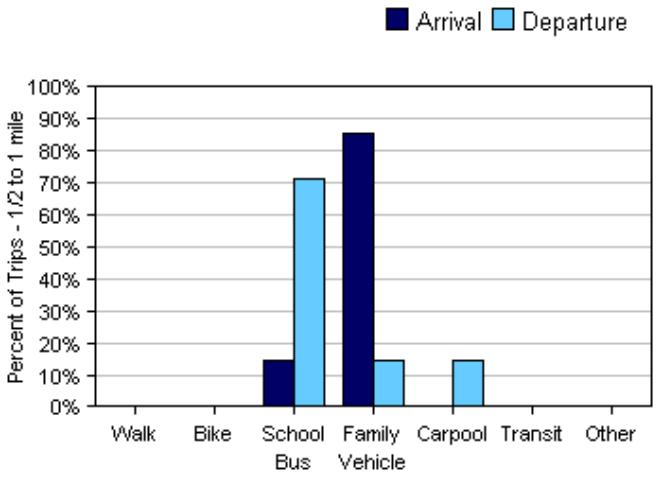
Time of Trip	Number of Trips	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Morning	77	0%	0%	57%	43%	0%	0%	0%
Afternoon	73	0%	0%	74%	25%	1%	0%	0%

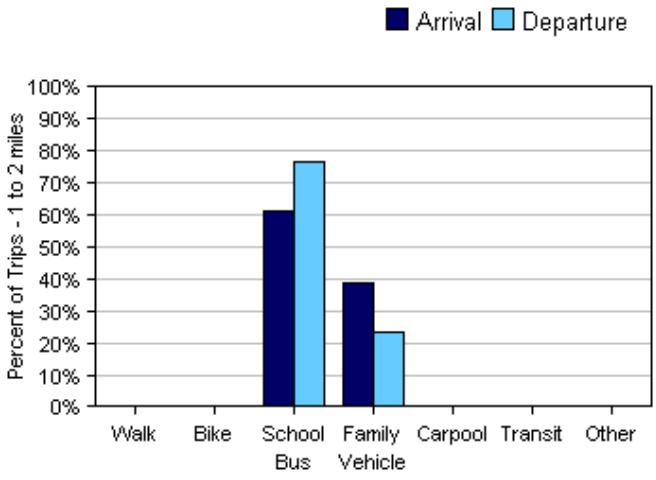
No Response Morning: 0
No Response Afternoon: 4
Percentages may not total 100% due to rounding.

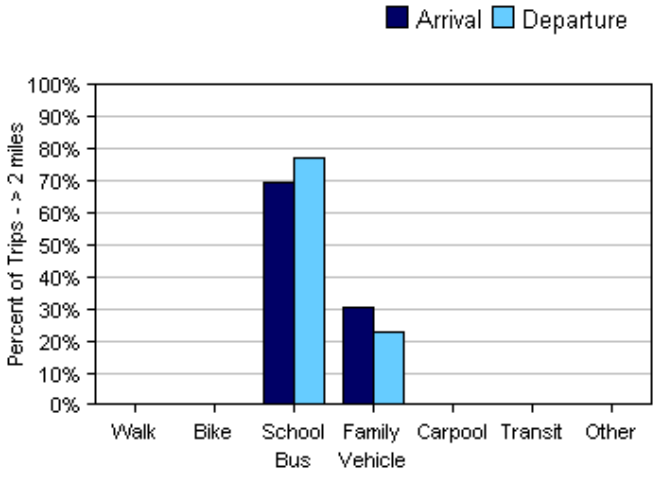
Typical mode of school arrival and departure by distance child lives from school











Typical mode of school arrival and departure by distance child lives from school

School Arrival

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	3	0%	0%	0%	100%	0%	0%	0%
1/4 mile up to 1/2 mile	2	0%	0%	0%	100%	0%	0%	0%
1/2 mile up to 1 mile	7	0%	0%	14%	86%	0%	0%	0%
1 mile up to 2 miles	18	0%	0%	61%	39%	0%	0%	0%
More than 2 miles	46	0%	0%	70%	30%	0%	0%	0%

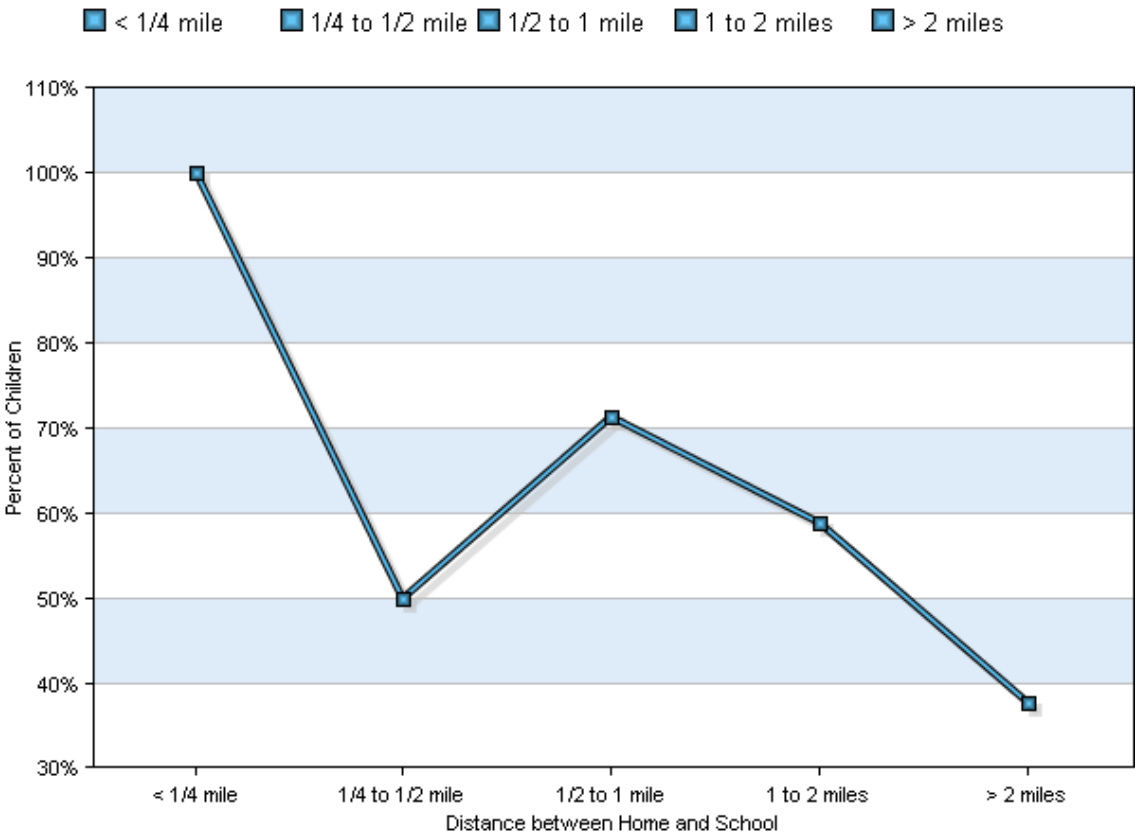
Don't know or No response: 1
Percentages may not total 100% due to rounding.

School Departure

Distance	Number within Distance	Walk	Bike	School Bus	Family Vehicle	Carpool	Transit	Other
Less than 1/4 mile	2	0%	0%	100%	0%	0%	0%	0%
1/4 mile up to 1/2 mile	2	0%	0%	0%	100%	0%	0%	0%
1/2 mile up to 1 mile	7	0%	0%	71%	14%	14%	0%	0%
1 mile up to 2 miles	17	0%	0%	76%	24%	0%	0%	0%
More than 2 miles	44	0%	0%	77%	23%	0%	0%	0%

Don't know or No response: 5
Percentages may not total 100% due to rounding.

Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

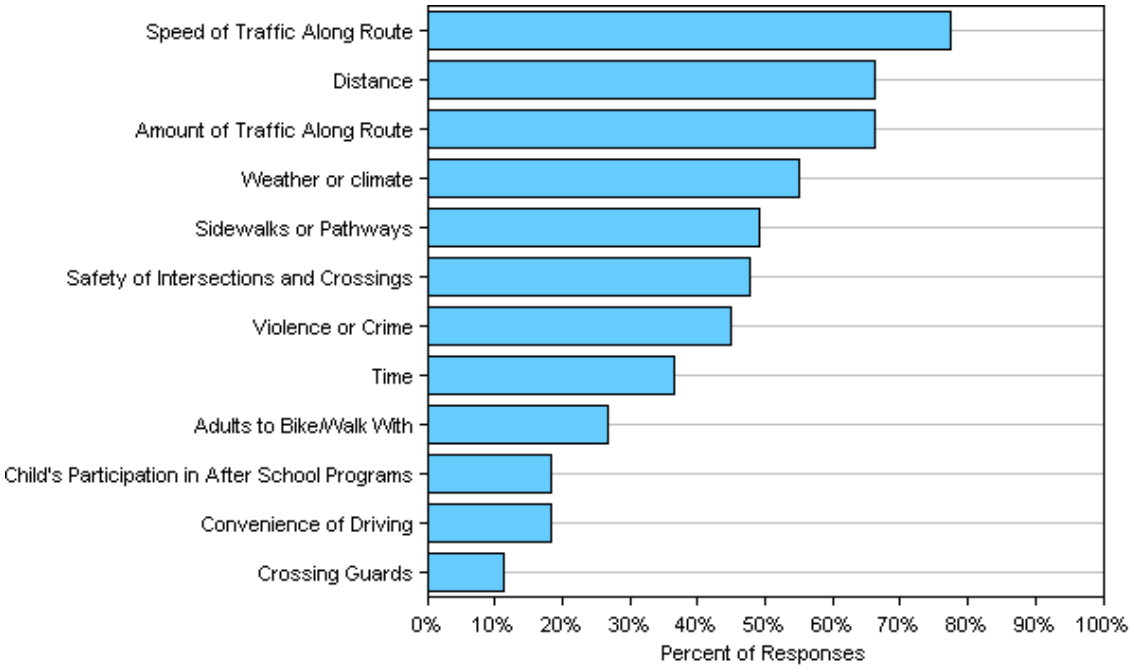


Percent of children who have asked for permission to walk or bike to/from school by distance they live from school

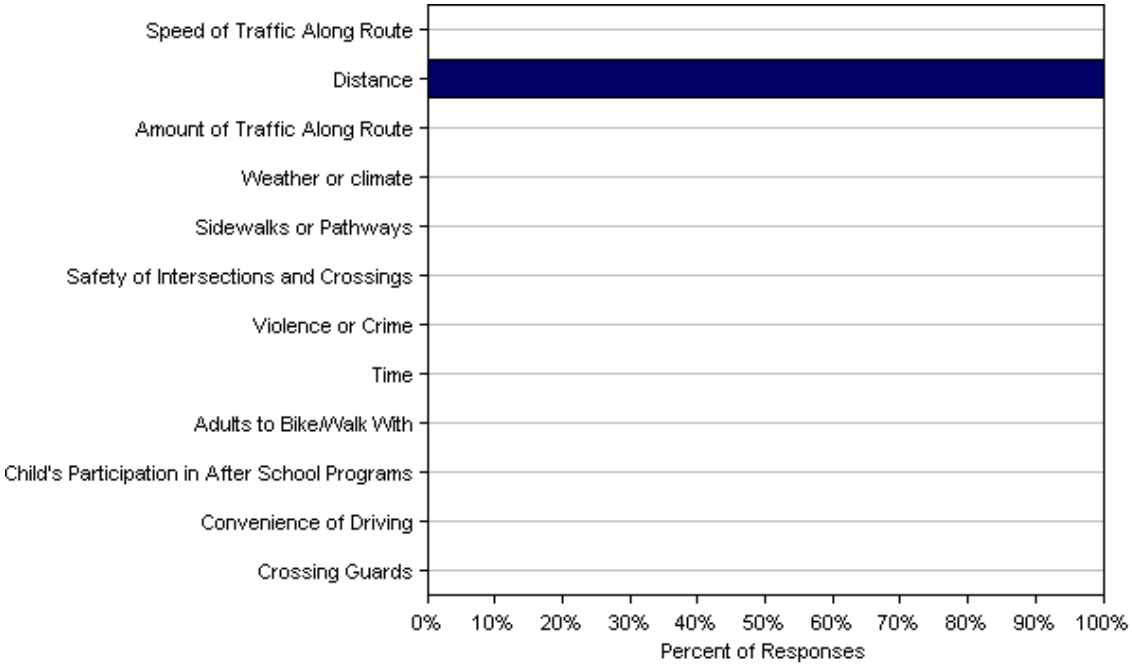
Asked Permission?	Number of Children	Less than 1/4 mile	1/4 mile up to 1/2 mile	1/2 mile up to 1 mile	1 mile up to 2 miles	More than 2 miles
Yes	36	100%	50%	71%	59%	38%
No	38	0%	50%	29%	41%	62%

Don't know or No response: 3
Percentages may not total 100% due to rounding.

Issues reported to affect the decision to not allow a child to walk or bike to/from school by parents of children who do not walk or bike to/from school



Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school

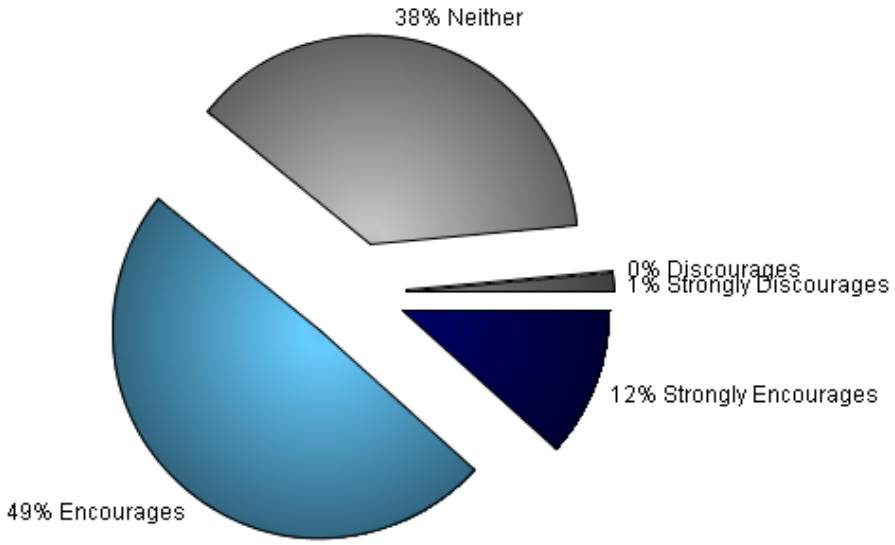


Issues reported to affect the decision to allow a child to walk or bike to/from school by parents of children who already walk or bike to/from school

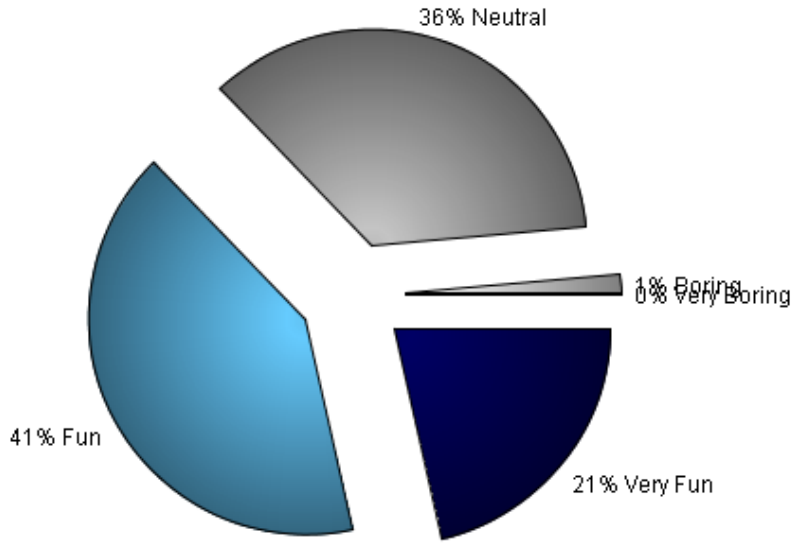
Issue	Child does not walk/bike to school	Child walks/bikes to school
Speed of Traffic Along Route	77%	0%
Distance	66%	100%
Amount of Traffic Along Route	66%	0%
Weather or climate	55%	0%
Sidewalks or Pathways	49%	0%
Safety of Intersections and Crossings	48%	0%
Violence or Crime	45%	0%
Time	37%	0%
Adults to Bike/Walk With	27%	0%
Child's Participation in After School Programs	18%	0%
Convenience of Driving	18%	0%
Crossing Guards	11%	0%
Number of Respondents per Category	**71**	**1**

No response: 5
Note:
--Factors are listed from most to least influential for the 'Child does not walk/bike to school' group.
--Each column may sum to > 100% because respondent could select more than issue
--The calculation used to determine the percentage for each issue is based on the 'Number of Respondents per Category' within the respective columns (Child does not walk/bike to school and Child walks/bikes to school.) If comparing percentages between the two columns, please pay particular attention to each column's number of respondents because the two numbers can differ dramatically.

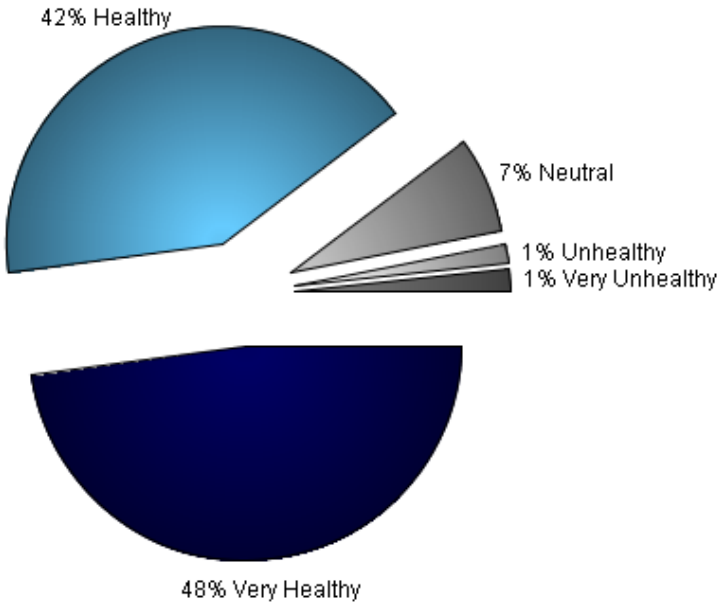
Parents' opinions about how much their child's school encourages or discourages walking and biking to/from school



Parents' opinions about how much fun walking and biking to/from school is for their child



Parents' opinions about how healthy walking and biking to/from school is for their child



Comments Section

SurveyID	Comment
908071	My child is 5 years old with 2 working parents, we are all very busy and need to be to work on time. If we were to walk every day, she would be at school before it opens and would be alone. It is not an option for her to walk by herself or without one of her parents.
908861	I would love for my children to have the opportunity to walk but not at the cost of their safety. Put Police Officers at the intersections or volunteers to supervise traffic speed and predators and I would let them walk daily.
908884	Stephanie would love to ride her bike, but my car won't fit bike after school. Plus too many strong hills for her.
908016	Our school encourages walking/biking to school, but there aren't safe routes to school. None of the roads have sidewalks/pathways and we live 9 miles from school.
908020	I would like my child walk/bike to school when he reached 6th grade, but only if he was in a group. There are pros and cons to having too much or too little traffic along the route to school.
908029	I feel no matter what happens, riding or walking to school will not be in our plan. It's too far and busy at that time of day.
908039	Too much traffic and hills to bike.
908382	High traffic and narrow roads are the chief concern for my children's safety when walking or riding.
908864	Seems like most schools are now being built outside the center of our towns. Unfortunate! I walked to school from 1st through 12th grade. Graduated in 1997. I would love for my children to have that opportunity and sense of community and safety. Needless to say, it would also be a healthy practice and save our schools busing costs. If we lived within 2 miles from school I would encourage more.
908888	There is a long, steep hill on the way home, which would be difficult for my kids to climb. We wish that we could ride bikes to school, but the hill, the cold and snowy winters, and our various school bags etc., would present challenges.
908001	Safety and concern over establishing a regular pattern.
908031	I do not feel that the world is safe enough place anymore to allow our children to walk to school even though it is very healthy for them it is just not safe no matter what age.
908874	On the chosen days of walk/roll, we drive our children to a closer location and they really enjoy biking from there.
908033	Why do you need to know how many years of school I completed?
908035	If our roads were wide enough for safer biking, I think we would all bike to school more often in the spring and fall.
908037	It is not safe enough for my children to walk to school. Clearly too much crime.
908876	Too many questions
907999	My children walked or biked to school most of last year.
908389	It is simply to far for him to walk or ride his bike due to distance and safety.

APPENDIX G

NON-ENGINEERING STRATEGIES RESOURCE GUIDE

Strategy	E's	Advantages	Considerations	Resources
Walking and Biking Safety Curriculum and/or Assembly These lessons can be held in the fall to promote Walk to School Day. Guest speakers teach the students pedestrian and bicycle safety skills that they can use when walking and biking to school. Instruction as a part of school curriculum is also vital to ensuring on-going learning of bicycle and pedestrian safety and development of skills.	**Education, Encouragement**	• Assures all children learn bicycle and pedestrian safety skills • Establishes habits that benefit children throughout their lives, regardless of whether they currently walk or bike to school • Establishes consistent messages for young pedestrians and bicyclists • Provides a refresher for parents if take home materials are provided in conjunction with the assembly. It's never too late to correct bad habits. • Events can make learning fun, and help strengthen community ties with event organizers and participants.	• Best taught using a combination of methods, including one-time instruction (e.g. assemblies), multi-lesson classroom curricula, and skills practice (e.g. bicycle safety fairs). • Requires able and willing instructors • Should be age-appropriate • Bicycle safety education may require an outside instructor, e.g. a police officer.	• Walk Smart/Bike Smart Vermont! http://healthandlearning.org/documents/WalkSmartBikeSmartFINAL2008_001.pdf • National Highway Traffic Safety Administration Pedestrian Safety Lessons http://www.nhtsa.gov/ChildPedestrianSafetyCurriculum • WalktoSchool.org - Classroom activities that encourage walking and biking. www.walktoschool.org/eventideas/classroom.cfm • Willie Whistle - The National Highway Traffic Safety Association has created a video to help teach children pedestrian safety skills. http://www.nhtsa.gov/people/injury/willie/willie.zip • See Partner Resource CD for more materials

Strategy	E's	Advantages	Considerations	Resources
Continue to Participate in Walk to School Day Walk to School Day is a one-day event that celebrates walking and biking to school in which Burke Town School already participates. Generally this event is scheduled for the first full week in October along with Vermont Walk and Roll to School Day in May. Why not use this strategy multiple times a year?	**Education, Encouragement**	• Excellent kick-off event for Safe Routes to School program • Generates enthusiasm for walking and biking • Way to raise community awareness about safety issues • Can be as simple as a few kids and parents meeting to walk to school or very elaborate celebrations • Can be folded into studies of international cultures as it is an international event • Date is flexible- to be counted by the National Center for Safe Routes to school the event need only take place before Dec 1.	• Preparations for elaborate celebrations must begin several months in advance to allow time to identify partners, plan activities, and promote the event • Should provide bicycle and pedestrian safety information to children and parents • International Walk to School Day takes place in October but some schools organize multiple Walk to School Day (or "Walk and Roll Day") events over the course of the school year (e.g. one in the fall and one in the spring).	• U.S. Walk to School Day website (provides resources and event registration): www.walktoschool.org • International Walk to School Day website: www.iwalktoschool.org/ • Plan and promote your Walk to School Day event http://saferoutes.vermont.gov/sites/saferoutes/files/PDFs/How%20To%20-%20Special%20Events.pdf • Include students when it is too far or unsafe http://saferoutes.vermont.gov/sites/saferoutes/files/Including%20Students%20When%20It%27s%20Too%20Far%20or%20Unsafe%20VT.pdf • See Partner Resource CD for more materials
Frequent Walker/Bicyclist Program or Walking Wednesdays Track and reward students who walk and bicycle to school. Can be an individual competition or a competition among classes.	**Encouragement**	• Provides positive reinforcement for walking and bicycling. • Children respond to incentives. • Can include all students. • Can include walking and bicycling beyond the trip to school.	• Necessary to identify a coordinator. • Establish a simple record-keeping system. • Establish age-appropriate goals. • Consider giving rewards to parents as well, since parents are often involved in the commute to school.	• Frequent Walker Punch card template http://saferoutes.vermont.gov/sites/saferoutes/files/PDFs/VT_SRTS_Punchcard_v2_110825-1.png • Vermont Challenge: Walk Across America http://saferoutes.vermont.gov/sites/saferoutes/files/PDFs/The%20VT%20Challenge%20-%20Walk%20Across%20Vermont%21.pdf • Tips for creating a walking and bicycling route map http://saferoutes.vermont.gov/sites/saferoutes/files/PDFs/Tips%20for%20Creating%20Walking%20and%20Bicycling%20Route%20Maps.pdf • See Partner Resource CD for more materials

Strategy	E's	Advantages	Considerations	Resources
Traffic Enforcement (Staff) This can be an ongoing program for school staff. This could work well in conjunction with PBIS.	**Education, Enforcement, Encouragement**	• Crossing guards play an important role in helping children cross the street at key locations, reminding drivers of the presence of pedestrians, and making parents feel more comfortable about letting their children walk and bicycle to school. • Staff and crossing guards can also reward students with Paws of Praise in order to reinforce positive behavior.	• Requires some training and coordination with crossing guards	• Adult School Crossing Guard Guidelines (NCSRTS) http://guide.saferoutesinfo.org/crossing_guard/pdf/crossing_guard_guidelines_web.pdf • Florida School Crossing Guard Training Guidelines http://saferoutesinfo.org/program-tools/florida-school-crossing-guard-training-guidelines • Lessons from Florida's Crossing Guard Program http://saferoutesinfo.org/events-and-training/srts-webinars/lessons-floridas-crossing-guard-program • See Partner Resource CD for more materials

Strategy	E's	Advantages	Considerations	Resources
Bicycle Safety Fair This is a single-day event that promotes bicycle safety. At the bicycle safety fair, students can borrow bicycles or bring their own.	**Education, Encouragement**	• Events such as bike safety fairs make learning fun and can help strengthen community ties with event organizers and participants. • At the bicycle safety fair students learn safety skills such as how to properly wear a helmet and how to behave while bike riding. The bicycle safety fair can also have a closed "test course" for the students to ride along. This helps the students to practice in a safe environment and gain confidence in their decision-making skills. • Possible partners for this include the Caledonia County Sheriff's Department or Kingdom Trails.	• Requires able and willing instructors • Should be age-appropriate • Bicycle safety education may require an outside instructor, e.g. a police officer. • These events require planning and materials to share with students	• Teaching a Bicycle Safety Fair in Vermont http://www.vtbikeped.org/what/VT_Safety_Fair_Curriculum.pdf • Bicycling Life page on bicycle safety fairs: http://www.bicyclinglife.com/SafetySkills/BicycleRodeo.htm • An organizer's guide to bicycle safety fairs http://www.bike.cornell.edu/pdfs/Bike_Rodeo_404.2.pdf • Easy steps to properly fit a bicycle helmet http://www.nhtsa.gov/people/injury/pedbimot/bike/EasyStepsWeb/
Walk Audit/Parent Surveys / Student tallies The team will meet annually (ideally in August before school starts) to review the accomplishments from the previous year and set new goals for the upcoming school year.	**Evaluation**	• Establishes baseline information on student travel behavior and perceived barriers to walking and biking • Helps determine existing needs • Helps determine success of SRTS efforts and identify needed adjustments	• Best to conduct initial surveys before SRTS measures have been implemented • Requires teacher buy-in and administrative organization • Getting parents to fill out and return surveys can be a challenge. Follow up is necessary. Consider a contest among classes for highest rate of return.	• Student In-Class Travel Tally Form: http://www.saferoutesinfo.org/resources/evaluation_student-in-class-travel-talley.cfm • Parent Survey Form: http://www.saferoutesinfo.org/resources/evaluation_parent-survey.cfm • Instructions for Survey Administration: http://www.saferoutesinfo.org/resources/evaluation_instructions.cfm • Instructions for Data Entry: http://www.saferoutesinfo.org/resources/evaluation_cover-sheets.cfm

Strategy	E's	Advantages	Considerations	Resources
Walking School Buses/ Bicycle Trains Walking school buses and bicycle trains are adult supervised groups of students walking and/or bicycling to school.	**Education, Encouragement**	• Adult supervision on the walk to school • Can be loosely structured or highly organized • Can include a meeting point in a parking lot so children and parents who must drive can participate. • Adults can rotate who will lead each time.	• Need to identify routes where conditions support walking and there is sufficient demand for supervised walking • Requires parents willing to walk with children and learn about how Walking school buses are organized and conducted. • More organized structure requires considerable planning	• How to start a walking school bus or bike train http://guide.saferoutesinfo.org/walking_school_bus/pdf/wsb_guide.pdf
Drive Safe Campaigns Some parents are not aware of how their driving behavior can put walking students at risk. This teaches parents how their unsafe driving habits can put their children in danger.	**Education**	• Has the ability to effect positive change in the community and around the school • Improves the safety of the walking environment • Good drivers can help to set the example for good behavior. This is especially true for helping to control speeds.	• This requires a person to organize and administer the campaign. • May not be effective at schools where parent/teacher organizations are weak • Law enforcement officers would be great at speaking at the campaign events. Sometimes, due to their heavy schedules that can be difficult to pin down. • A good way to contact parents is at back to school night and PTA meetings. Starting at the beginning of the year helps to prevent bad habits from starting. Law enforcement officers (or other teachers) can hold a brief assembly to explain the dangers of unsafe driving in school areas. • Law enforcement officers can provide a demonstration of how difficult it is to quickly stop a moving vehicle at 50, 40 and 30 mph. The National Center has information on how the speed of the vehicle can affect the severity of injury that the pedestrian experiences in a crash.	• Driving Around Schools: Keeping Children Safe http://apps.saferoutesinfo.org/lawenforcement/resources/driving_tips.cfm • Parents, Avoid Becoming a Traffic Hazard http://www.aaamidatlantic.com/FetchFile.ashx?id=e55bfa26-a70d-4e17-afde-073b86cc9975

Strategy	E's	Advantages	Considerations	Resources
Crossing Guard Appreciation Day Crossing guards help our children cross the road safely in the mornings and afternoons, in all weather conditions. Remind them that you appreciate their service and dedication. Students can create thank you cards that they deliver themselves during their walks home, or teachers and administrators can honor them formally during a school assembly.	**Encouragement**	• Maintains a positive relationship between the crossing guards and the school/community. • Can inspire crossing guards to continue to be reliable, safety figures. • Creates an opportunity to remind students why it is important to practice safe walking skills.	• Requires coordination between the crossing guards, school administrators and school instructors. • May require materials to create the thank-you cards. • Is most effective with newsletter and in-school announcements. • Relatively inexpensive strategy	• Active Transportation Alliance webpage for Crossing Guard Appreciation Day http://www.activetrans.org/crossingguard

APPENDIX H

SNOW REMOVAL TOOLKIT

APPENDIX H SNOW REMOVAL TOOLKIT

Prompt and effective snow, ice, and slush clearance on sidewalks along Safe Routes to School is critical for maintaining safe biking and walking conditions. Snow removal of bicycle and pedestrian accommodations that are designated school routes should be planned for. According to the VT Pedestrian and Bicycle Facility Design Manual Section 10.5.1, local policies should treat the clearance of snow from walkways as equally important as clearance of snow from roadways in order to maintain year-round accessibility.

Guidelines

The responsibility of all snow and ice clearance generally falls upon the property owner of the facility. A municipality's highway department is typically responsible for snow and ice removal on roads and sidewalks on public property. Private roads and sidewalks on private property are the responsibility of the property owner.

A clear, unobstructed pathway at a minimum of 48" wide should be provided on all sidewalks, curb ramps, and through crosswalks. Snow, slush, and ice should be cleared from sidewalks, to provide a clear path of 48", ideally, within 12 hours after a storm event. Designated portions of the roadway for bicycle use should also be cleared since, even in winter, some experienced bicyclists commute by bicycle.

Pedestrian walkways, curb ramps, and crosswalks or bicycle facilities should not be used for areas of snow storage. Additional consideration should also be taken to maintain adequate sight distances at all intersections and to prevent snow storage from building up too close to walkways.

Paved shared-use paths that are designated routes to school should be kept clear of snow so that students can walk to school year-round. Snow clearance is not a consideration for natural surface paths that are used for winter activities which also allow students to cross-country ski or snow-shoe to school.

Recommendations

The following six basic recommendations can assist a community in developing a strategy to improve sidewalk snow and ice clearance.

1. Create a norm of snow and ice clearance through social awareness campaigns.
2. Identify a municipal point person for snow removal.
3. Determine priority sidewalks and paths for snow clearance.
4. Improve monitoring and enforcement.
5. Design sidewalks for easier snow removal.

6. Train municipal and private snow plowing personnel on the guidelines for pedestrian and bicycle facility clearance (i.e., 48" clear path and priority routes.)

Monitoring and Enforcement

There are three primary ways in which the clearance of sidewalks can be monitored and enforced;

1. Identify who monitors and enforces.
2. Define penalties and how they will be enforced.
3. Implement a social awareness campaign.

APPENDIX I

INFRASTRUCTURE STRATEGIES RESOURCE GUIDE

Strategy	Advantages	Considerations	Resources	Actions
Wide Paved Shoulders Wide paved shoulders are created by striping a roadway to provide space for a shoulder and a travel way for motor vehicles. Wide paved shoulders can be created by adding pavement to one or both sides of the paved roadway or by narrowing travel lanes. Current Vermont State Standards recommend ten-foot minimum travel lanes for state and local roads.	• Provide room for pedestrians when there is no sidewalk or other facility. • Provide a clear space for bicyclists that is separated from the motor vehicle travel way. • Research has shown that by narrowing travel lanes, motor vehicle speeds might also be reduced.	• Lane markings need to be bright and maintained to clearly delineate the motor vehicle travel lane. When lane markings fade, the travelway for motor vehicles appears to be wider, which tends to encourage motorists to travel at higher speeds. • When adding pavement to widen the roadway and accommodate shoulders, the base material for the shoulder needs to be integrated well with the base material under the existing road to minimize the potential for pavement cracking and settling that would create hazardous conditions for bicyclists and motorist. • The *Vermont State Standards* provide detailed information on appropriate travel lane and paved shoulder widths for different classifications of state roads. These standards also provide a guide for appropriate lane and shoulder widths for town roads. • Other considerations include right-of-way, drainage, grading, existing signs and structures, and utilities.	• Vermont State Standards http://www.aot.state.vt.us/progdev/standards/statabta.htm	• For town roads, start with discussions with the appropriate, Selectboard, Board of Trustees, or City Council (municipal legislators) and town officials, such as road commissioner and/or town engineer to determine the municipality's policies on travel lanes widths. Provide background information on the benefits of narrower travel lanes for speed reduction and safer conditions for pedestrians and bicyclists. • Review shoulder widening proposals with municipal officials. If sufficient pavement exists, suggest conducting an experiment with temporary striping to provide wider shoulders. • Follow up the experiment with feedback and request for comments from municipal officials and community.

Strategy	Advantages	Considerations	Resources	Actions
Speed Feedback Signs Speed feedback signs, either temporary or permanent, show motorists how fast they are traveling as calculated by radar.	• Speed feedback signs tend to slow motorists and remind motorists of the posted speed limits.	• Speed feedback signs on state roads must follow the State's placement guidelines for state roads. Installing a feedback sign requires a highway access permit from the State. • Permanent signs may be appropriate at school zones; elsewhere temporary signs, set up for short periods at various locations, can be more effective. • Speed feedback signs, including those installed through VTrans funded projects on state roads, require a maintenance and care agreement with the local municipality.	• *Guidelines for the Use of Radar Speed Feedback Signs on the State Highway System* http://www.aot.state.vt.us/documents/3014_Guidelines_on_the_Use_of_Radar_Speed_Feedback_Signs.pdf • *Classification of Vermont Roads* http://maps.vermont.gov/imf/sites/ANR_NATRESViewer/jsp/	• Review the State's speed feedback sign guidelines to be sure the proposed location is acceptable. • Contact the municipality to determine the appropriate person to contact regarding the placement of speed feedback signs, either temporary or permanent. Check with the local police or sheriff to see if they have a portable trailer that can be used on a temporary basis as a trial. • Contact the responsible party to understand their process for the placement of speed feedback signs and whether the sign should be temporary or permanent. Follow the process for installation of the speed feedback sign. • If a temporary feedback sign was installed, review the results with the municipality to determine if it has been successful. If successful, suggest the municipality install a permanent speed feedback sign. • Permanent feedback signs are an eligible use for SRTS funds. Check with the regional planning commission about this and other potential funding sources.

Strategy	Advantages	Considerations	Resources	Actions
High-visibility Crosswalks High-visibility crosswalks are roadway markings designating a location for pedestrians to cross a roadway. High-visibility crosswalks are typically in locations that are convenient to pedestrians and visible to motorists. High-visibility crosswalks must be installed with reflective durable material.	• Crosswalks provide notification to both pedestrians and motorists to where pedestrians may be crossing the roadway. • Pedestrians have the right-of-way when in a crosswalk and motorists are supposed to stop their vehicles until the pedestrian has cleared the roadway.	• Pedestrians should assume that a motorist may not see them or stop. • Crosswalks should have a receiving facility, such as a path, sidewalk, or adequate shoulder for use by pedestrians on either end. • Crosswalks may be marked with different striping patterns but the most common pattern is the ladder style. Further considerations may be needed for crosswalks at unsignalized intersections and at mid-block locations to determine if the crosswalk is warranted. • Crosswalks are not appropriate for every location as they may give the pedestrian a perceived sense of safety that may not exist.	• *Vermont Pedestrian and Bicycle Facility Planning and Design Manual* http://www.aot.state.vt.us/progdev/Sections/LTF%20Info/BikePedTOC.html • Vermont's *Guidelines for the Installation of Crosswalk Markings and Pedestrian Signing at Marked and Unmarked Crossings* http://www.aot.state.vt.us/progdev/sections/highway%20info/DocumentsRoadwayPages/TrafficOpsCrosswalk%20Guidelines%202004.pdf*Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations* http://www.fhwa.dot.gov/publications/research/safety/04100/04100.pdf • *Classification of Vermont Roads* http://maps.vermont.gov/imf/sites/ANR_NATRESViewer/jsp/	• For all classifications of roadways, state and local, consult with the regional planning commission about the appropriateness of the proposed location for a crosswalk. • Follow-up with the municipal road commissioner, planner, or engineer to seek their guidance and support. • For non-state roads, after gaining appropriate endorsements, work with the appropriate local official or employee to get the high-visibility crosswalk installed in the proper and safe location. • For state roads, work with the regional planning commission to get a formal study to determine if a crosswalk is warranted and safe.

	Advantages	Considerations	Resources	Actions
Shared-use Paths Shared-use paths are separate facilities for non-motorized users such as bicyclists and pedestrians. Typically these facilities have their own right-of-way rather than sharing a right-of-way with a roadway.	• Provides a safe place for non-motorized users that are typically separated from motor vehicles. • Shared-use paths appeal to users of all different skill levels, particularly those with basic or beginner skills.	• Shared-use paths should typically be a minimum of ten feet wide and paved with asphalt. • Guidelines for the construction of shared-use paths can be found in the *Vermont Pedestrian and Bicycle Facility Planning and Design Manual.* • Further considerations are needed at intersections of the shared-use path and roadways to ensure safety for all users.	• *Vermont Pedestrian and Bicycle Facility Planning and Design Manual* http://www.aot.state.vt.us/progdev/Sections/LTF%20Info/BikePedTOC.html	• Work with the municipal planning office, road commissioner, administrator, or other municipal officials to gain their support for the proposed shared-use path. • Work with municipal partners to engage the regional planning commission with the project in terms of funding or other support for an initial alignment study to determine the appropriate shared-use path alignment and end points. This study will help the community understand where the shared-use path may be located as well as the issues that will need to be addressed, the types of permits that will be needed, and the potential cost for developing the shared-use path as proposed. This study, done with community input, will help the community decide if they want to proceed further with the project. • If the community wishes to continue to pursue a shared-use path, work with the municipal partner to understand potential funding sources and the various requirements involved in obtaining them.

Strategy	Advantages	Considerations	Resources	Actions
Bicycle Routes/ Bicycle Pedestrian Warning Signs Bicycle route signs are officially designated routes for bicyclists through municipalities; they are typically used to focus bicycle travel onto roadways most suited for it. Bicycle and/or Pedestrian present warning signs (with an image of a bicycle and a pedestrian) provide a notice to motorists, that bicyclists or pedestrians are likely to be present.	• Bicycle route signs assist bicyclists in determining the best route for their travel. • Warning signs raise safety conditions for bicyclists due to greater awareness by motorists of bicyclists on the road.	• The number and location of bicycle routes and signs should be carefully studied by the community prior to implementation. Measures should be taken to reduce sign clutter. • Bicycle route signs and warning signs must meet the guidelines provided in the *Manual on Uniform Traffic Control Devices* (MUTCD). • In cases where there are on-road sections of bicycle connecting nearby trails, where a bike lane ends or a paved shoulder is reduced at a bridge, a "Share the Road Sign" may be appropriate. The "Share the Road" sign should be used to indicate a relatively brief special condition.	• *Vermont Pedestrian and Bicycle Facility Planning and Design Manual* http://www.aot.state.vt.us/progdev/Sections/LTF%20Info/BikePedTOC.html • *Manual on Uniform Traffic Control Devices, latest edition (MUTCD),* http://mutcd.fhwa.dot.gov/kno_2009r1r2.htm	• Review guidelines provided in the latest edition of the MUTCD to make sure signs are compliant. • Work with the municipal planning office, road commissioner, administrator, or other municipal officials to gain their support for the creation of bicycle routes. • Follow the recommendations of the local official or employee as to the appropriate way to proceed, which could include: - Presenting the idea to the municipal legislators; - Implementing existing recommendations in a bicycle plan for the community; - Undertaking the development of a bicycle plan for the community to make sure that the specific recommendations still work within the context of the entire municipality; and - Working with the regional planning commission.

Strategy	Advantages	Considerations	Resources	Actions
Sidewalks Sidewalks are paths separated from other roadway users along the sides of the roadway reserved for pedestrians.	• Sidewalks provide a relatively safe location for pedestrians along the sides of a roadway. • They help to separate other roadway users and pedestrians within the same right-of-way.	• The availability of sufficient right-of-way to install sidewalks, including the travel way for vehicles and standards for sidewalk width, must be assessed. • Sidewalks are most effective when they include a buffer from the paved surface of the road that is at least five feet wide. • When sufficient right-of-way is not available for a buffer, a curb can provide some degree of separation between the roadway and the sidewalk. • Other considerations include drainage, grading, existing signs, structures, and utilities. • Sidewalks can be constructed of various materials including concrete, asphalt, or stone dust.	• *Vermont Pedestrian and Bicycle Facility Planning and Design Manual* http://www.aot.state.vt.us/progdev/Sections/LTF%20Info/BikePedTOC.html • *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach* (Institute of Transportation Engineers - Publication #RP 036A) http://www.ite.org/emodules/scriptcontent/orders/ProductDetail.cfm?pc=RP-036A-E	• Review the State's *Pedestrian and Bicycle Facility Planning and Design Manual* to determine the appropriate dimensions based on roadway classification. • Work with the municipal planning office, road commissioner, administrator, or other municipal officials to gain their support for the proposed sidewalk. • Work with municipal partners to determine the appropriate sidewalk location based on available right-of-way. • Review the sidewalk location to determine if any additional issues will need to be addressed, the types of permits that will be needed, and the potential cost for developing the proposed sidewalk. This review, done with community input, will help the community decide if they want to proceed further with the project. • If the community wishes to continue work on the proposed sidewalk, work with the municipal partners to understand potential funding sources and the various requirements involved in obtaining them.

Strategy	Advantages	Considerations	Resources	Actions
School Zones A school zone is an identified location on the roadway abutting a school which extends several hundred feet in each direction. It is identified with signs and pavements markings and sometimes includes a reduced speed zone.	• School zones increase motorists' awareness to look for students on or near the road and to drive with more caution.	• The creation of a school zone typically needs the approval of the municipality, either from the Selectboard, Board of Trustees, or City Council, unless they have passed on this approval to the road commissioner. • School zones created on state roads need VTrans approval. • Sight distances and other roadway conditions should inform the location of signs and pavement markings noting the limits of the school zone, within MUTCD guidelines. • With few exceptions, school zones are located on the roadway adjacent to the school's main entrance. • Must comply with State sign laws and laws for setting speed limits.	• *Manual on Uniform Traffic Control Devices, latest edition (MUTCD),* http://mutcd.fhwa.dot.gov/kno_2009r1r2.htm • Refer to *Vermont Statute 23, Section 1007* for guidance on assigning local speed limits http://www.leg.state.vt.us/statutes/fullsection.cfm?Title=23&Chapter=013&Section=01007	• Work with the municipal planning office, road commissioner, administrator, or other municipal officials to gain their support for the proposed school zone. • Discuss the creation of a school zone with local Selectboard, Board of Trustees, or City Council to gain their support. • For a school zone on a state road, work with municipal officials and/or the regional planning commission to contact VTrans to propose a school zone. • Work with the municipal planning office, road commissioner, administrator, or other municipal officials to determine the specific limits of the school zone and the methods to be used to notify motorists of its presence, including signage, warning lights during arrival and dismissal times, pavement markings, or other methods. • Work with municipal partners to determine the most appropriate way to provide funding for the notifications as appropriate and work with them to secure funding.

Strategy	Advantages	Considerations	Resources	Actions
Road Signs Road signs provide information on road conditions, direction, advisories, or mandatory actions. Road signs may be regulatory, warning, or guide signs.	• Signs notify road users about road conditions, other users, regulations, or conditions that may not be immediately apparent. • Many signs are not typically an expensive installation and can be approved and installed quickly.	• The number and type of existing signs can influence the effectiveness of new signs. Sign "clutter" can diminish the impact of new signs. • Permanent signs can become part of the background and their perception by regular road users can diminish over time. • Changing conditions, such as temporary flashing lights or periodic flags, can help to continually draw attention to a sign. • Adding new signs to a local road typically needs the approval of the municipality, either from the Selectboard, Board of Trustees, or City Council, unless they have passed on this approval to the road commissioner. • Signs added to state roads need VTrans approval. • Any proposed signage must meet the guidelines provided in the *Manual on Uniform Traffic Control Devices* (MUTCD). • Temporary devices such as in-street "Yield to Pedestrian" signs, require designated personnel to provide continuous maintenance. Such signs must be installed and removed EACH DAY of intended use and should not remain on the roadside when not in use.	• *Vermont Pedestrian and Bicycle Facility Planning and Design Manual* http://www.aot.state.vt.us/progdev/Sections/LTF%20Info/BikePedTOC.html • *Manual on Uniform Traffic Control Devices, latest edition (MUTCD),* http://mutcd.fhwa.dot.gov/kno_2009r1r2.htm • *Classification of Vermont Roads* http://maps.vermont.gov/imf/sites/ANR_NATRESViewer/jsp/	• Work with the municipal planning office, road commissioner, administrator, or other municipal officials to gain their support for the placement of new signs. • Discuss the placement of new signs with local Selectboard, Board of Trustee or City Council to gain their support. • Work with the municipal planning office, road commissioner, administrator, or other municipal officials to determine the appropriate place for the signs while meeting guidelines provided in the MUTCD. • If proposed on a state road, work with the municipal officials and the regional planning commission to contact VTrans to gain their approval and any necessary permitting for the proposed sign s.